

No. 15-1034

**In the
United States Court of Appeals
for the Federal Circuit**

WONDERLAND NURSERY GOODS CO., LTD.

Appellant,

v.

THORLEY INDUSTRIES LLC,

Appellee.

Appeal from the United States Patent and Trademark Office – Patent Trial and Appeal Board
in Reexamination no. 95/001,871, Administrative Patent Judge Brett C. Martin.

BRIEF OF APPELLANT

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Wonderland Nurserygoods Co., Ltd. v. Thorley Industries LLC

No. 15-1034

CERTIFICATE OF INTEREST

Counsel for the (petitioner) (appellant) (respondent) (appellee) (amicus) (name of party)
petitioner _____ certifies the following (use "None" if applicable; use extra sheets
if necessary):

1. The full name of every party or amicus represented by me is:
Wonderland Nurserygoods Co., Ltd.

2. The name of the real party in interest (if the party named in the caption is not the real
party in interest) represented by me is:
Wonderland Nurserygoods Co., Ltd.

3. All parent corporations and any publicly held companies that own 10 percent or more
of the stock of the party or amicus curiae represented by me are:
NONE

4. ☐ The names of all law firms and the partners or associates that appeared for the party
or amicus now represented by me in the trial court or agency or are expected to appear in this
court are:

Baker & McKenzie LLP, David. I. Roche

October 23, 2014

Date

/s/ David I. Roche

Signature of counsel

David I. Roche

Printed name of counsel

Please Note: All questions must be answered

cc: _____

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STATEMENT OF RELATED CASES

No other appeal in or from the civil action below has been before this or any other appellate court.

This court's decision in the pending appeal will undoubtedly affect the case of *Wonderland Nurserygoods Co. v. Thorley Indus., LLC*, Civil Action No. 12-196 (the "District Court Case"), currently pending, but on stay, in the Western District of Pennsylvania, because that case involves the same patent that is at issue in this appeal, i.e., U.S. Patent No. 8,047,609 (the "'609 Patent").

JURISDICTIONAL STATEMENT

The United States Patent & Trademark Office Patent Trial and Appeal Board (the "Board") below had jurisdiction of this case pursuant to 35 USC § 134.

On August 27, 2014, Appellant Wonderland Nurserygoods Co., Ltd. ("Wonderland"), the Patent Owner, filed a notice of appeal from the final decision of the Board, which issued on June 30, 2014. This appeal was timely taken according to 35 USC. § 142, Wonderland's Petition for Review/Notice of Appeal having been filed within 30 days, on August 27, 2014. This Court has jurisdiction over this Appeal pursuant to 35 USC § 141.

STATEMENT OF THE ISSUES

The following issues arise from the decision of the Board affirming the PTO

Examiner's rejection of claims 1, 2, 12, 13 and 19-24 of the '609 patent:

1. Whether the Board erred as a matter of law in construing the preambles of claims 12, 19 and 21 as non-limiting;
2. Whether the Board erred as a matter of law by ignoring the limitations of the preambles of the claims in determining whether Nordella is analogous art;
3. Whether the Board erred by relying on less than substantial evidence in determining whether Nordella is analogous art; and
4. Whether the Board erred as a matter of law in relying on new grounds of rejection in applying the second test to find the Nordella reference to be analogous art, when the Board had relied on the first test to sustain the rejections of claims 12, 13 and 19-24.

Even if the preambles of claims 12, 19 and 21 are deemed non-limiting, the following additional issues arise:

5. Whether the Board erred as a matter of law in construing the term "bottom seat," or by inconsistently applying its own construction of that term, in sustaining both: a) the rejection of claims 12, 13 and 19-24 based on a Nordella/Caster combination, and b) the rejection of claims 1 and 2 based on a Nafte/Caster combination;
6. Whether the Board erred by relying on less than substantial evidence to find that Nordella has a "second motion mechanism" between a "supporting element" and a "bottom seat" in sustaining the rejection of claims 12, 13 and 19-24 based on a Nordella/Caster combination;
7. Whether the Board erred by relying on less than substantial evidence in finding that Nordella sufficiently shows guided vertical motion in sustaining the Examiner's rejection of claim 23;
8. Whether the Board erred as a matter of law by ignoring the limitation of claim 24 calling for the bottom seat to be generally "plate-like" wjem ot sustained the rejection of that claim based on a Nordella/Caster

combination;

9. Whether the Board erred as a matter of law in construing the term "between" to have an "elevational" meaning, when it sustained the rejection of claims 1 and 2 based on a Nafte/Caster combination; and
10. Whether the Board erred as a matter of law in determining that the term "broad" is indefinite as used in claim 24.

THE STATEMENT OF THE CASE

Wonderland appeals from a decision by the Board, which affirmed an Examiner's rejection of claims 1, 2, 12, 13 and 19-24, in an *Inter Partes* Reexamination of U.S. Patent No. 8,047,609 (the "'609 Patent") on an infant rocking chair.

Wonderland challenges the Board's decision in several respects. The most fundamental error was the Board's tacit approval of the Examiner's decision to treat the preamble as non-limiting. The approval was tacit, because the Board never mentions the preamble issue, notwithstanding that it was the main focus of Wonderland's oral argument to the Board. The Board's treatment of the "infant rocking chair" language as non-limiting erroneously led to the use of the non-analogous Nordella reference as part of its legal conclusion on the issue of obviousness.

In misconstruing the preamble, the Examiner, and ultimately the Board, reached a different conclusion than did Judge Fischer in the District Court Case, which has been stayed pending the resolution of the PTO reexamination

proceeding. Wonderland brought to the attention of the Examiner and Board the ruling by Judge Fischer that the preambles of the claims in this case *are* limiting. Judge Fischer's correct ruling should, as a matter of law, should have been adopted here. Had the preambles been construed as limiting, as Judge Fischer held, the outcome of this proceeding would have been different.

When the claims, including their preambles, are given their broadest *reasonable* construction in view of the specification, the Nordella reference is clearly non-analogous art. Nordella is a chair used as a flight simulator or for entertaining adults in a "dark show". In contrast, the '609 patent is a device that recreates the soothing motion a caregiver provides when holding an infant. Nordella is in a field very different from that of the '609 patent, and Nordella addresses a very different problem from the one confronting the inventor of the '609 patent.

The treatment of the preambles as having "no significance" is not the only claim construction error. The Examiner and the Board construed the term "bottom seat" to effectively read both "bottom" and "seat" out of the claims. They also gave the term "between" a novel, and unreasonably broad, meaning that simply considers relative elevation. These additional errors impact all of the rejected claims.

With respect to claim 24, the Examiner and the Board ignored the "plate-

like" limitation of claim 24, and erred as a matter of law in ruling that the term "broad", which has been ubiquitous in patent claims for years, is indefinite.

THE STATEMENT OF THE FACTS

A. The Invention

The invention of the '609 patent relates to an infant rocking chair that moves an infant chair vertically and horizontally to achieve a curved motion. The motion of the invention of the '609 patent is intended to "simulate the motion usually made by a person taking care of and holding an infant in his or her arms." (A31) The patent was granted on November 1, 2011. (A14).

B. The Parties

Established in 1983, Wonderland is a manufacturer of baby products, such as soothers (e.g., swings), car seats, strollers, play yards and high chairs. Wonderland has long been the exclusive manufacturer of these products for Graco Children's Products Inc., a major supplier of baby products in the United States headquartered in Atlanta, GA.

Thorley is a designer and developer of baby products located in Pittsburgh, PA, and was founded in 2005.

C. The Inter Partes Reexamination and the District Court Case

Thorley (the "Requester") filed a voluminous (117 page) Request for *Inter Partes* Reexamination of the '609 patent on January 12, 2012, about two months after the '609 patent issued and about a month before Wonderland filed a

Complaint for patent infringement (Case No 12-196 - the "District Court Case") asserting the '609 patent against Thorley in the U.S. District Court for the Western District of Pennsylvania.¹ The Request for *Inter Partes* Reexamination sought review of many, but not all, of the claims of the '609 patent, i.e., claims 1-3, 13, 13, and 19-20.

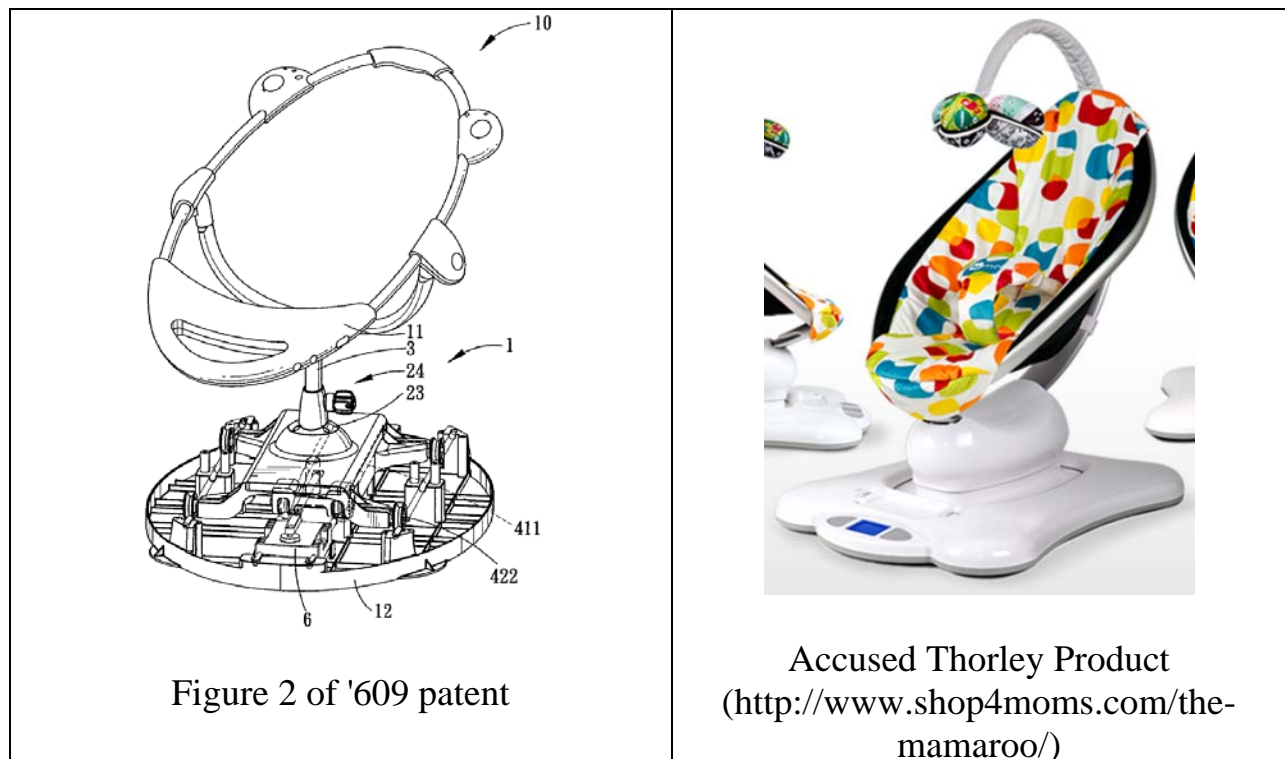
On February 14, 2012, the Central Reexamination Unit of the PTO issued an order granting in part and denying in part Thorley's requested reexamination, refusing to adopt a majority of Thorley's proffered bases for unpatentability, and denying the request entirely with respect to claim 3, an asserted claim in the District Court Case. Wonderland asserted claim 14 of the '609, but Thorley did not include that claim in its Request for Reexamination. Thus, as a result of Thorley's decision not to request reexamination of claim 14 and the PTO's refusal to reexamine claim 3, the stayed District Court case presently involves two claims that are not the subject of the reexamination of the '609 patent.

On March 14, 2012, U.S. District Judge Nora Barry Fischer denied a motion by Thorley seeking a stay the District Court Case. *Wonderland Nurserygoods Co. v. Thorley Indus., LLC*, 858 F. Supp. 2d 461, 465 (W.D. Pa. 2012). From that

¹ The Western District of Pennsylvania is a participant in the Patent Pilot Program. See http://www.uscourts.gov/News/NewsView/11-06-07/District_Courts_Selected_for_Patent_Pilot_Program.aspx.

point, the parties were engaged in what was, in effect, a "race to the Federal Circuit" between the District Court Case and the PTO Inter Partes Reexamination.

Wonderland and Thorley litigated the District Court Case throughout 2012 and 2013, and were prepared for trial on January 27, 2014. The District Court Case included a Memorandum and Opinion on the construction of several terms in the '609 patent, including: "infant rocking chair", "bottom seat" and several other terms. *Wonderland Nurserygoods Co. v. Thorley Indus., LLC*, 2013 U.S. Dist. LEXIS 4927 (W.D. Pa. Jan. 11, 2013). A representative figure of the '609 patent and a representative photo of Thorley's accused product are shown below:



The District Court Case also included a ruling denying a motion by Thorley for summary judgment of invalidity of the '609 patent. *Wonderland Nurserygoods*

Co. v. Thorley Indus., LLC, 988 F. Supp. 2d 479, 497 (W.D. Pa. 2013). The District Court issued that ruling following full briefing and oral argument. Among other things, in denying Thorley's motion, the Court said: "... Nordella and the '609 Patent may not be in the same field of endeavor, and they may not attempt to solve similar problems." *Id.* at *33-34. The Court also said: "The lack of explanation [for combining Nordella and Caster] suggests that both Thorley and the PTO are improperly using the '609 Patent as a roadmap to reconstruct the claimed invention based on hindsight." *Id.* at *38.

On the day of trial (January 27, 2014), and after significant trial preparation, including flying witnesses from around the globe to Pittsburgh for trial, the District Court issued a stay of the District Court Case. *Wonderland Nurserygoods Co., Ltd. v. Thorley Indus., LLC*, 2014 U.S. Dist. LEXIS 23255 (W.D. Pa. Feb. 24, 2014)(Dkt. #229). That ruling, and the denial of subsequent motion to lift the stay, effectively ended the race to the Federal Circuit, ensuring that the PTO proceeding would reach this Court before the District Court Case.²

On February 15, 2014, Examiner Jimmy G. Foster of the PTO's Central Reexamination Unit issued a Right of Appeal Notice ("RAN") rejecting claims 1,

² This case is unusual in that Wonderland is asserting in the District Court Case two claims (3 and 14) that are not part of the *Inter Partes* Reexamination. Thorley's request for reexamination of claim 3 was denied, and Thorley did not request reexamination of claim 14.

2, 12, 13 and 19-24, on a wide variety of grounds. Wonderland filed an appeal in the PTO (A659, A381) and Thorley responded (A351). The Examiner, however, filed a one-page Examiner's Answer simply incorporating the RAN by reference (A346), and did not address any of the specific points raised by Wonderland in its PTO appeal brief.

The parties presented oral argument to the Board (A201-64), and the Board subsequently issued the ruling that is the basis for this appeal (A1-13). The Examiner had adopted fewer than half of the many rejections proposed by Thorley in its Request for Reexamination (A1050-62). In the end, the Board's decision sustained only three of the rejections the Examiner had made, i.e., Nafte + Caster (claims 1 and 2), Nordella + Caster (claims 12-13, 19-24) and indefiniteness of claim 24 based on use of the word "broad" to describe the bottom seat of the claimed invention. (A1-13).

This appeal followed the Board decision.

SUMMARY OF THE ARGUMENT

The question of whether a preamble limits a claim is an issue of claim construction reviewed *de novo* by this Court. The Examiner in this case ignored established case law on when a preamble is limiting. That error was compounded when the Board ignored the issue, and sustained the Examiner's erroneous decision to treat the preambles as non-limiting.

The erroneous treatment of the preamble language opened the door to a mistaken reliance on the Nordella reference, which fails to meet either of the two *Bigio* tests for analogous art. Nordella is clearly not in the same field as the claimed invention, and Nordella addressed a very different problem (making a flight simulator chair less likely to pinch an occupant) from the one addressed by the inventor of '609 patent (rocking a baby to sleep).

The Board and the Examiner made additional errors of claim construction, any one of which requires reversal of rejections sustained by the Board, or at least warrant remand for further prosecution. This is especially true for claim 24, where the Examiner and the board ignored narrowing limitations of the type that are allowed and encouraged as part of the *inter partes* reexamination process.

STANDARD OF REVIEW

This Court reviews conclusions of law of the Board *de novo*, including: 1) whether the Board relied on a new ground for rejection, *In re Pacer Tech.*, 338 F.3d 1348, 1349 (Fed. Cir. 2003), *In re Leithem*, 661 F.3d 1316, 1318 (Fed. Cir. 2011); 2) claim construction, *Rambus Inc. v. Rea*, 731 F.3d 1248, 1252 (Fed. Cir. 2013)("[C]laim construction by the PTO is a question of law that we review *de novo*" (quoting *In re Baker Hughes Inc.*, 215 F.3d 1297, 1301 (Fed. Cir. 2000))), and 3) the ultimate conclusion of obviousness, *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

This Court's *de novo* review of claim construction takes into consideration a Patent and Trademark Office ("PTO") protocol whereby it gives claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) citing *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Findings of fact made by the Board are reviewed for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1315 (Fed. Cir. 2000). The substantial evidence review asks "whether a reasonable fact finder could have arrived at the agency's decision" and requires examination of the "record as a whole, taking into account evidence that both justifies and detracts from an agency's decision." *Gartside*, 203 F.3d at 1312.

I. ARGUMENT

A. The preambles of claims 12, 19 and 21 limit those claims.

- 1. The Board's failure to give proper weight to the terms "infant" and "rocking" in claims 12, 19 and 21 is based on the erroneous view that the preamble of the claims is not limiting.**

The Board and the Examiner essentially ignored the words "infant" and "rocking" in evaluating the teachings and applicability of the Nordella reference. This stems from the Examiner's stated view in the RAN that the preambles have "no significance", an example of which, in the context of claim 19, is as follows:

Requester (9/26/2012 Comments, section VIII):

Requester argues that there is no significance to the claimed subject matter from an inclusion of "infant rocking chair" in the preamble. Requester also considers that any driving device for a rocking chair with the remaining limitations would read on the claimed invention. Requester requests that the Examiner maintain the rejection, which was properly applied over Surbaugh.

Examiner's Response

The Examiner expresses full agreement with the positions taken by Requester regarding this rejection.

RAN at p. 77 (A744)(underlining added)

The Examiner's view on claim 12-13 and 19-24, as a group, is that the preambles of those claims have "no significance", despite the fact that the preambles of claim 12 and 21 are different from the preamble of claim 19.³

The Examiner first recites the Requester's position that phrase "infant rocking chair," which is in all of claims 12-13 and 19-24, has "no significance" because it is in the preamble, and then expresses "full agreement" with the Requester:

³ Claim 12 and 21, which start with: "An infant rocking chair comprising: ..."), but claims 1 and 19, which start with; "A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:

Requester (9/26/2012 Comments, section VI):

A. Whether Nordella Discloses an Infant Rocking Chair

Requester points out that Patent Owner's present position regarding how the Patent Owner believes that claims 12, 13 and 19-24 distinguish over Nordella constitutes a reiteration of Patent Owner's previous position. Requester asserts that the Examiner should maintain rejection made the ACP against those claims.

In answer to Patent Owner's argument that its preamble furnishes a claimed limitation, Requester argues, along with citation of the Federal Circuit, that a claim's preamble is not considered a limitation and is of no significance to claim construction when the body of a claim has fully and intrinsically sets forth all of the limitations of the claimed invention, whereas the preamble has merely stated, for example, the purpose or intended use of the invention as opposed to setting forth any distinct definition of any of the claimed invention's limitations. From this, Requester asserts that there is no significance provided to the remainder of Patent Owner's claim based on an infant rocking chair being set forth in the preamble. Requester substantially contends, moreover, that any rocking chair meeting all limitations set forth in the claim body would naturally read on the claimed invention.

RAN at p. 49 (A716)(underlining added)

After setting forth the Requester's position, the Examiner expressed full agreement, saying:

Examiner's Response:

The Examiner expresses full agreement with the positions taken by Requester regarding this rejection.

A. Whether Nordella Discloses an Infant Rocking Chair

With respect to the question of whether Nordella discloses an infant rocking chair, Patent Owner's arguments after ACP, which were also substantially made prior to the ACP, remain unpersuasive. Examiner maintains the position that was taken in the ACP. Inasmuch as a person

RAN at p. 50 (A717)(underlining added).

The Examiner does indicate that he gave some limiting value to the preamble of at least some claims. For example, on p. 51 of the RAN, the Examiner

says: "Contrary to the assertion of Patent Owner, weight has been given to the limitation 'infant rocking chair' to the extent that the subject matter employs a chair capable of holding an infant, and the chair undergoes backward and forward motion, as indicated in the rejection." RAN at p. 51 (A718).

However, as a practical matter, the value he accorded was negligible. The Examiner construed "infant" in the phrase "infant rocking chair" as referring to anything capable of holding an infant (i.e. being big enough to fit an infant). As Judge Fischer noted, this essentially construes the word "infant" out of the claim. (A447)("Because a chair could possibly hold an infant, such a chair is not an 'infant chair'"). The Examiner's construction has the effect of giving the claim an unreasonably broad scope. This undue breadth also impacts the determination of what qualifies as analogous art.

The Examiner appears to have construed "rocking" as simply being able to move in two opposite directions, backward and forward. For example, on p. 33 of the RAN (A700), the Examiner cites to Col. 3, lines 60-66 of Nordella, when finding that Nordella shows "rocking":

19. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:...

Nordella discloses a rocking chair because it discloses a chair (seat 58) which has a supporting apparatus for providing motion thereto, including, for example, pivoting motion forward and backward (see for example col. 5, lines 14-17 and 40-44) and rolling motion forward and backward (see col. 3, lines 60-66). Inasmuch as the seat would be capable of holding an infant, the chair further may be considered to define an infant rocking chair.

RAN, p. 33 (A700).

The portion of Nordella upon which the Examiner relies does NOT discuss rocking at all. Instead, it simply discusses an ability to roll forward and backward, without any mention of how long it might take to change from one direction to the other:

80. Guide wheels 83 may be connected to the lower end 60 of the vertical frame members 82 by pins and/or brackets 84 (not shown, but similar to brackets 70) to allow the intermediate stage assembly 54 to roll forward and backward along channels 86 located on the upper surface of the horizontal frame 64 of the foundation stage 65 assembly 52.

Nordella, Col. 3, lines 60-66 (A1262).

There is nothing in Nordella that discusses backward and forward motion of a continuous or instantaneous (i.e., rocking) nature, and nothing to suggest that Nordella would be capable of a smooth transition from one direction to the other. In other words, the Examiner merely paid lip service to the notion that the phrase "infant rocking chair" was a limitation of the claim.

There is no discussion of the preamble language in the Board's decision. In the Action Closing Prosecution ("ACP") and again in the RAN, the Examiner cited and relied on two cases for the conclusion that the preamble was not limiting: *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298 (Fed. Cir. 1999); and *Rowe v. Dror*, 112 F3d 473,478 (Fed. Cir. 1997)). APC at 10 and 50 (A895,

A935), and RAN at 16 and 74 (A683,A741).

Yet, in BOTH of those cases, this Court construed the preamble as limiting the claim, directly contrary to the construction the Examiner applied. In *Pitney Bowes*, this Court summarized its ruling, saying: "Here, the preamble is 'necessary to give life, meaning, and vitality' to the claim." 182 F.3d at 1306 (Fed. Cir. 1999). In *Rowe*, this Court also construed the preamble as limiting, but did so for the reason that the claim was in Jepson format, which is not the case with the instant claims.

Thus, in the both of the cases upon which the Examiner and the Requester relied for ignoring the limitations of the preamble of the claims of the '609 patent, the Courts took an approach that is opposite to the one that the Examiner and the Requester advocated, and which the Board sustained.

Other more recent cases address the limiting nature of various preambles, at least some of which are like the preamble of claims 1 and 19, in that they provided antecedent basis for terms used later in the claim. *See Highmark, Inc. v. Allcare Health Mgmt. Sys.*, 2012 U.S. App. LEXIS 16450, at *19 (Fed. Cir. Aug. 7, 2012) ("The preamble of claim 102 clearly falls within those cases where the preamble is held to be limiting because the 'limitations in the body of the claim rely upon and derive antecedent basis from the preamble.'") (quoting *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003)); *Bicon, Inc. v. Straumann Co.*,

441 F.3d 945, 952 (Fed. Cir. 2006) (“when the limitations in the body of the claim ‘rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.’”) (quoting *Eaton*, 323 F.3d at 1339). These cases were cited and discussed in Wonderland's Appeal Brief in the PTO. (A404-410).

Judge Fisher of the Western District of Pennsylvania looked closely at the question of whether the preambles of the '609 patent are limiting, based on full briefing from Wonderland and Thorley. Judge Fisher heard oral argument on the issue, and issued a Memorandum which explained her reasoning and discussed in detail, the applicable legal principles and case law. Her ruling is well-reasoned and it addresses the legal issue fully and directly. See Memorandum Opinion on Claim Construction, 2013 U.S. Dist. LEXIS 4927, *13-*18 (W.D. Pa., 2012)(Related Proceedings Appendix)(A445-446).

In contrast, the Examiner summarily dismissed the legal arguments presented by Wonderland, parenthetically citing two cases which actually support the notion that a preamble is limiting. RAN at p. 16 and 74(A683,A741). The Board did not address the question of whether the preamble language limits the claims. The Examiner and the Board did not acknowledge, much less follow, Judge Fischer's construction, as a matter of law, of the very same preambles that are at issue here.

In the District Court Case, following extensive briefing and an oral argument, Judge Fischer made two important rulings. First, she held that the preamble is limiting, despite Thorley's arguments to the contrary. A446. She then construed the term "infant rocking chair" as a "a seat or chair-like device designed for infants", and explained her ruling at length. A447.

One of the points Judge Fischer makes is fundamental and bears directly on the question of what is or is not analogous art:

Recitation of "infant rocking chair" in Claims 1, 12, and 19 is necessary to understand the subject matter encompassed by the claim.

Memorandum Opinion on Claim Construction, 2013 U.S. Dist. LEXIS 4927, *16 (W.D. Pa., 2012)(Related Proceedings Appendix)(A446).

Judge Fisher went on to explain her ruling on the meaning of the preamble limitation "infant rocking chair", saying:

Because a chair could possibly hold an infant, such a chair is not an "infant chair." Instead, the Court is persuaded that "infant rocking chair" means a seat or chair-like device designed for infants, as Wonderland suggests.

Memorandum Opinion on Claim Construction, 2013 U.S. Dist. LEXIS 4927, *20 (W.D. Pa., 2012)(Related Proceedings Appendix)(A447).

On one hand, we have Judge Fischer's ruling on whether the preamble language of the claims is limiting, arguably a "yes" or "no" question, not subject to the "broadest reasonable standard". That ruling was fully explained and was made

by an experienced Article III judge based on complete briefing, review of the relevant case law and oral argument. On the other hand, the Patent Examiner (a non-lawyer), citing cases that favor Wonderland's position, took an opposite view from that of Judge Fischer, and the Board remained silent on the issue.

For the reasons explained by Judge Fischer, and in accordance with the cases decided by this Court, the preambles of the claims, including the term “infant rocking chair,” are limitations on the scope of the claims. Nordella clearly does not show a chair designed for an infant (expressly or inherently). It is not inherently shown in Nordella, because the device of Nordella (for flight simulators and similar applications) would be completely inappropriate for an infant.

The Examiner arrived at an erroneous, non-limiting construction of the preamble in a number of ways. First, he focused on only a portion of the preamble of claim 19 – “[a] driving device . . .” – and ignores the rest, i.e., “for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:” (A34). The body of claim 19 depend upon portions of the preamble for antecedent basis, and those portions define two important components that make up the infant rocking chair: (1) a seat body; and (2) a bottom seat. Moreover, the body of claim 19 heavily depends upon those two infant rocking chair components to define the location and configuration of various components of the driving device. Claim 19 is reproduced below:

19. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:

a base adapted to be disposed between the seat body and the bottom seat; a supporting element connected to said base and adapted to support the seat body; a first motion mechanism including a horizontal first guide path unit adapted to be disposed at the bottom seat, and a first movable member disposed on said base and movable along said first guide path unit; and a second motion mechanism adapted to be disposed between the seat body and the bottom seat for driving said supporting element to move up and down relative to said first movable member.

'609 patent at col. 8, lines 42-53 (underlining added)(A34).

The Examiner never argued that claim 19 without its preamble defines a structurally complete invention. The preamble of claim 19 does not merely state a purpose or intended use. The body of claim 19 is structurally incomplete without the preamble, because it relies upon the preamble to provide an antecedent basis for two essential components of the infant rocking chair, the “seat body” and the “bottom seat”. *See Highmark, Inc. v. Allcare Health Mgmt. Sys.*, 2012 U.S. App. LEXIS 16450, at *19 (Fed. Cir. Aug. 7, 2012) (“The preamble of claim 102 clearly falls within those cases where the preamble is held to be limiting because the ‘limitations in the body of the claim rely upon and derive antecedent basis from the preamble.’”) (quoting *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003)); *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006)

(“when the limitations in the body of the claim ‘rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.’”) (quoting *Eaton*, 323 F.3d at 1339).

This Court’s decision in *Seachange Int’l, Inc. v. C-COR Inc.*, 413 F.3d 1361 (Fed. Cir. 2005), is particularly relevant here. In that case, the parties disputed whether the term “distributed computer system,” recited in the preamble of the following claim, was a limitation, or simply a statement of intended use:

37. A method for redundantly storing data in a distributed computer system having at least three processor systems, each processor system comprising at least one central processing unit and at least one mass storage sub-system, comprising the steps of:

interconnecting each one of said processor systems through a network for data communications with each other one of said processor systems; and

storing data input at any one of said processor systems according to a distributed, redundant storage process with data stored at each of said processor systems and a portion of a redundant representation of the data is stored at each of said processors.

Id. at 1368 (emphasis added). Notably, the term “distributed computer system” is recited *only* in the preamble, just like the term “infant rocking chair” in this case. Nevertheless, the this Court still held that the term “distributed computer system” was a limitation, reasoning as follows:

In this case, the preamble notes that the claimed method is for storing data in a “distributed computer system”

which has “at least three processor systems.” ‘312 patent, col. 22, ll. 17-18. The preamble further describes the components of a “processor system” to be “at least one central processing unit” and “at least one mass storage subsystem.” *Id.*, col. 22, ll. 19-20. The body outlines the claimed method, the steps of which repeatedly involve “said processor systems.” *Id.*, col. 22, ll. 22-29 (emphasis added). The preamble provides the only antecedent basis and thus the context essential to understand the meaning of “processor system”; therefore, the preamble, including the phrase “distributed computer system,” limits the scope of the claimed invention. *NTP*, 392 F.3d at 1358-59 (relying on preamble of method claim to define scope of limitations that derived their antecedent basis from preamble).

Id. at 1376 (emphasis added).

This Court’s reasoning in *Seachange* is applicable here. Here, the preamble of claim 19 calls for a driving device for an infant rocking chair, which chair is comprised of “a seat body” and “a bottom seat”. The portions of claim 1 that follow the preamble repeatedly refer “the seat body” and “the bottom seat” as structural features of the claimed invention. The preamble of claim 19 provides the only antecedent basis for these terms. Thus, the preamble of claim 19 provides context essential to understand the meaning of “the seat body” and “the bottom seat.” Therefore, the preamble, including the term “infant rocking chair,” limits the scope of the invention of claim 19.

Appellant is mindful of one case in which this Court approved use of the “broadest reasonable” standard to hold that a preamble is not limiting. *In re*

Taylor, 484 Fed. Appx. 540; 2012 U.S. App. LEXIS 12053 (Fed. Cir. 2012). However, that case is readily distinguishable. It is designated as "NONPRECEDENTIAL and MAY NOT BE CITED AS PRECEDENT". Most importantly, the argument in favor of treating these terms as limitations was based on the rationale of *Catalina Marketing International, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801 (Fed. Cir. 2002), and the fact that the terms of the preamble were argued as limiting during prosecution, thereby becoming substantive limitations.

Here, at least for claims 1 and 19, Wonderland and Judge Fischer have relied on a different rationale (i.e., when a preamble provides antecedent basis for terms used later in the claim), and both have distinguished the *Pitney-Bowes* case relied upon by the Examiner. The Board made no attempt to address or otherwise explain why the line of cases upon which Wonderland relies, i.e., *Highmark*, *Eaton*, *Bicon* and *Seachange*, are not outcome determinative.

The "broadest reasonable" standard is not a license to discount the limiting nature of a preamble, and it does not provide an Examiner with a basis for effectively ignoring limitations of a claim. Yet, the Examiner and the Board in this case have done just that in this case.

2. The preamble is important, because its limitations impact the scope of what qualifies as analogous art.

"Two criteria have evolved for determining whether prior art is analogous:
(1) whether the art is from the same field of endeavor, regardless of the problem

addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *In re Clay*, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992), citing *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). See also *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

The test for what qualifies as analogous art is closely connected to the question of the scope of the invention, as claimed. *Id.* at 1325. The "'field of endeavor' test asks if the structure and function of the prior art is such that it would be considered by a person of ordinary skill in the art because of similarity to **the structure and function of the claimed invention** as disclosed in the application." *Id.* at 1325-26 (emphasis added).

Thus, if the claims of the '609 patent are limited by their preamble language, then the claims, including their preambles, are what must be used to determine what is or is not analogous art. Here, the question of whether the claims of the '609 patent are limited by the language of their preambles, is an important issue, because the Board, the Examiner, and the Requester are relying on a far-flung art, i.e., Nordella -- an entertainment/teaching device for adults that has nothing to do with infants or the problem of infant soothing.

If the preambles are limiting, the Nordella reference clearly does not qualify as analogous art. First, Nordella is not in the same field of endeavor. Second,

Nordella does not address the same problem addressed by the inventor of the '609 patent, i.e., soothing an infant with motion like that of a caregiver.

a. Nordella does not pass the first test, because it is not in the same field as the '609 patent.

As the Examiner ruled, the field of Caster, like that of the '609 patent, is devices that induce relaxation and sleep to sitting infants. Order Granting/Denying Reexamination, pages 8 and 9 ("Someone in the field of Caster, regarding devices to induce relaxation and sleep to sitting infants,...")(A1056-57). This is a logical and appropriate finding. Yet, the Examiner made a contradictory finding, i.e., that Nordella and Caster are in the same field (rocking seats). RAN, p. 81,84,89,96. (A748,A751,A756,A763). This later finding is not supported by substantial evidence, because the stated field of Nordella is clearly that of seats for flight simulators and dark show simulators:

BACKGROUND OF THE INVENTION 5

1. Field of the Invention

The present invention relates to a mechanical seat apparatus, and more particularly, to a mechanical seat apparatus designed to simulate motion for a person viewing a video or other program. 10

2. Description of the Prior Art

Recently, movement simulators have become popular in which a viewer seated in a specially designed seat is shown a video or other program. The seat is designed to tilt or otherwise move in conjunction with the program to simulate motion shown in the program. 15
Common applications for such simulators have been as flight simulators, video game simulators, and dark show simulators where an audience seated in a number of adjacent simulators is shown a common video or program. 20

Nordella, Col. 1:5-20 (A1261)(highlighting added for emphasis).

In contrast, the field of the invention of the '609 patent is, like Caster's, very different from Nordella's:

BACKGROUND OF THE INVENTION

1. Field of the Invention 15

This invention relates to an **infant** rocking chair, and more particularly to a driving device for driving a seat body of an infant rocking chair to move back and forth as well as up and down.

2. Description of the Related Art 20

Conventional infant rocking chairs can only produce either only a back-and-forth motion or an up-and-down motion. However, a curved swinging motion in which a back-and-forth motion is combined with an up-and-down motion so as **to simulate the motion usually made by a person taking care of and holding an infant in his or her arms,** is able to impart greater comfort to the infant. Furthermore, conventional driving devices for driving infant rocking chairs include interconnected gears, which generate a large amount of noise during operation. 25 30

SUMMARY OF THE INVENTION

An object of this invention is to provide a driving device for driving a seat body of an infant rocking chair to reciprocate back and forth as well as up and down in such a manner that only little noise is generated, **thereby resulting in infant comfort.** 35

'609 patent at Col. 1:14-38 (highlighting added for emphasis)(A31).

It is clear that the field of endeavor of both Caster and the '609 patent is devices to induce relaxation and sleep to sitting infants, as the Examiner clearly stated. This field is not the same as Nordella's. The stated fields of Nordella and the '609 patent could hardly be more different, and the Examiner's express finding

as to the field of Caster fully supports a conclusion that Nordella is not analogous art under the first test for analogous art. There is simply no substantial evidence to support a contrary finding.

b. Nordella does not pass the second test because is not reasonably pertinent to the problem faced by the inventor of the '609 patent.

"References are selected as being reasonably pertinent to the problem based on the judgment of a person having ordinary skill in the art." *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992). "It is necessary to consider 'the reality of the circumstances, in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor." *Id.* (quoting *In re Wood*, 599 F.2d 1032, 1036 (C.C.P.A. 1979)); *In re Kahn*, 441 F.3d 977, 986-987 (Fed. Cir. 2006). This test begins the inquiry into whether a skilled artisan would have been motivated to combine references by defining the prior art relevant for the obviousness determination, and that it is meant to defend against hindsight. See *Oetiker*, 977 F.2d at 1447; *In re Clay*, 966 F.2d 656, 659-60 (Fed. Cir. 1992).

Caster's field, according to the Examiner was "devices to induce relaxation and sleep to sitting infants" (A1056-1057). Caster's problem to be solved was to sooth an infant to sleep with a variety of gentle motions with long cycles of repetition:

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to apparatuses similar to infant rockers and more particularly to apparatuses which impart motion to an infant to assist the infant in relaxing or going to sleep. 10

...

SUMMARY OF THE INVENTION

Accordingly, it is a general object of the present invention to provide an apparatus for inducing sleep in an infant which obviates the disadvantages of the prior art. 40

In particular, it is an object of the present invention to provide an apparatus for inducing sleep in an infant which creates a complex motion with three or more degrees of freedom. 45

It is still another object of the present invention to provide an apparatus for inducing sleep in an infant which imparts motion with a longer cycle of repetition.

Caster Col. 1:6-12, 37-48 (A1291)

The goal of Caster is very similar to the goal addressed by the invention of the '609 patent, i.e., "to simulate the motion usually made by a person taking care of and holding an infant in his or her arms." '609 patent at Col. 1:25-26.

The Nordella patent is clearly directed to a very different problem, i.e., reducing the number of hydraulic cylinders in a row of seats to reduce pinching hazards associated with multiple, separate driving systems. See Nordella at Col. 1:27-28 (disadvantages associated with the use of hydraulic actuation cylinders), Col. 1: 29-32 (past simulator designs have typically included a separate hydraulic

cylinder for imparting and controlling movement in each desired direction, with a separate set of hydraulics provided for each seat.); Col. 2:34-37 ("thus preventing the seat from lurching, or adjacent seats from 'pinching' viewers therebetween in multiple simulator applications.").

This Court has noted that, in the context of determining what is, or is not, analogous art, defining the problem too broadly can result in erroneous results. *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1460 (Fed. Cir. 1984). The Board itself has noted that "defining the problem too broadly...may result in considering prior art as 'analogous' which is inconsistent with real world considerations." *Ex parte Dussaud*, 1988 Pat. App. LEXIS 11, 7 U.S.P.Q. 2d 1818, 1819 (B.P.A.I. 1988). "The pertinence of the reference as a source of solution to the inventor's problem must be recognizable with the foresight of a person of ordinary skill, not with the hindsight of the inventor's successful achievement." *Sci. Plastic Prods. v. Biotage AB*, 766 F.3d 1355, 1359 (Fed. Cir. 2014), citing *In re Oetiker*, 977 F.2d at 1447. See also *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006) (holding that the motivation-suggestion-teaching test, much like the analogous-art test, is used to defend against hindsight).

In the RAN, the Examiner stated that "both Caster and Nordella are concerned with multiple degrees of freedom of movement, with Nordella having more." This may be true, but there is *nothing* in the '609 patent about increasing

the degrees of freedom of motion or achieving a high number of such degrees.

Here, the Board defined the problem confronted by the inventor of the '609 patent as designing "a mechanism that can cause a chair to move up and down and back and forth." Bd. Dec. at 9 (A10). This definition is far too broad, and is not a reasonable description of the problem faced by the inventor of the '609 patent, and is not related to the problem that the Examiner says that both Caster and Nordella were concerned with, i.e., increasing the degrees of freedom of movement.⁴

The Board ignores perhaps the two important words used throughout the '609 patent (see the title, abstract and preamble) -- "infant" and "rocking". The Board seems to ignore the background of the invention in the '609 patent, which mentions simulating the curved swinging motion provided by caregivers of infants ('609 patent, Col. 1:23-26), and goal of little noise being generated, to obtain infant comfort ('609 patent, 1:36-38).

The Board's definition of the problem is not supported by substantial evidence and is the kind of overly broad definition that the courts recognize as an indicator of hindsight.

⁴ In fact, the seat of the '609 is driven *only* move up and down and back and forth. Since no rotational degrees of freedom are shown, nor is side-to-side motion shown, the seat (as driven) has only two of six possible degrees of freedom.

c. The Board's "even if..." statement improperly attempts to shift the burden to the Wonderland.

The PTO has the initial burden of proof "to produce the factual basis for its rejection of an application under sections 102 and 103." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). The Board has recognized that unreasonably broad statements by Examiners improperly shift the burden of proof to the applicant to prove entitlement to a patent. *Ex parte Verwoerd*, 2012 Pat. App. LEXIS 1982 (Pat. App. 2012).

On page 9 of its decision in this case, the Board says:

Even if we were to narrow the problem to be solved to such motion so as to induce sleep in an infant, Patent Owner has submitted no evidence that the device disclosed in Nordella would be incapable of moving a chair in such a fashion.

Bd. Dec. at 9 (A10).

With this statement the Board is improperly attempting to shift the burden to Wonderland to show that the combination of Nordella and Caster does not present a *prima facie* case of obviousness. It is not Wonderland's burden to show that Nordella is unable to be used to rock an infant to sleep; it is the Examiner's burden to show that it can. In the Examiner's discussion of Nordella as an anticipating reference (a position not affirmed by the Board), he concluded that: 1) because Nordella is able to move the chair both forward and backward, it is a rocking chair, and 2) because the chair is big enough for an adult, it is capable of holding a child,

and is therefore an infant rocking chair RAN, p. 44 (A711).

With respect to the "curved motion" of claim 21, the Examiner again speculates that: 1) because Nordella describes motion "in the up/down direction as well as a component motion in the forward/backward direction" it would have been obvious to "have furnished by happenstance any *inherent, but unexpressed*, capabilities as well in the combination with such a seat." (emphasis in original) RAN, p. 87 (A754).

In recognizing the role of common sense, this Court has emphasized the importance of a factual foundation to support a party's claim about what one of ordinary skill in the relevant art would have known., *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362-1363 (Fed. Cir. 2013); *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377 (Fed. Cir. 2012); *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328 (Fed. Cir. 2009).

Thus, common sense should apply to **both**: 1) making combinations that result in obviousness rejections, and 2) refusing to rely on combinations. Aside from the conclusory and unsupported nature of the above-quoted statements about Nordella and its capabilities, those statements do nothing more than assume that a motion sufficient to rock an infant to sleep could be achieved by the Nordella flight simulation chair. However, while an infant would, no doubt, fit into the seat of Nordella, it is absurd to think that the Nordella device would or could be used to

rock in an infant to sleep.

In addition, there is simply nothing in Nordella to suggest that rocking or *continuous* back and forth motion (claims 12 and 19) or a repetitive *curved* motion (continuous back and forth, and up and down motion)(claim 21) could be obtained with the hydraulic cylinders of Nordella. The Board and the Examiner merely assume that an ability to drive a chair "backward and forward" necessarily means that rocking (continuous) is "inherent". They also assume that the same is true of vertical motion, and that both vertical and horizontal motions are inherently capable of being performed simultaneously with hydraulic cylinders.

A reference inherently discloses an element of a claim "if that missing characteristic is necessarily present, or inherent, in the single anticipating reference." *Schering Corp. v. Geneva Pharms.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) (citation omitted) (emphasis added). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1325, 1332 (Fed. Cir. 2010), (citing *Cont'l Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991)).

The Board, the Examiner and Thorley all ignored the word "rocking", and have instead focused on backward motion and forward motion, regardless an any transition between them. It is the coordinated motion achieved by the combination

of mechanisms that allows the chair to be a "rocking chair", and there is no discussion of this concept anywhere in Nordella.

The Supreme Court has explained that the PTO's technical expertise was the "reason[] that courts and commentators have long invoked to justify deference to agency factfinding." *Dickinson v. Zurko*, 527 U.S. 150, 162, 119 S. Ct. 1816, 144 L. Ed. 2d 143 (1999)(the Court held that the agency's expert knowledge was the foundation for the substantial evidence standard of appellate review); See also *Kappos v. Hyatt*, 132 S. Ct. 1690, 1700, 182 L. Ed. 2d 704 (2012) (recognizing that the "PTO has special expertise in evaluating patent applications").

The Board members "discern no reason that one of skill in the art would be incapable of creating such motion using the device disclosed in Nordella." Bd. Dec. at 9-10. Again, this is an attempt to shift the burden to the Patent Owner to show that the combination of Nordella and Caster does NOT make a prima facie case of obviousness with respect to claims 12-13, 19-20 and 21-24.

It is worth noting that only one of the many cited prior art reference in this case shows an hydraulic cylinder. That one reference is Kanaya (A1267-75), which shows a foot-operated pump for raising the shampoo chair of Kanaya at Col. 4:1-49 (A1272), and is clearly incapable of providing rocking motion, at all, let alone the kind that would soothe an infant. Wonderland believes that persons of ordinary skill would know that hydraulic cylinders cannot smoothly change the

direction of the forces they apply, and that this is apparent from the absence of any cited art suggesting that this is possible.

The Examiner and the Board have not shown that Nordella's drive mechanism, if used to replace the drive of Caster, would meet the limitations of the claims calling for an infant rocking chair, and it was improper for the Board to attempt to impose the burden on Wonderland to show that a Nordella/Caster combination would not function as an infant rocking chair.

d. By relying on the second *Bigio* test for analogous art, instead of the first, the Board based its decision on a new ground for rejection.

Whether the Board relied on a new ground for rejection is a legal question that this Court reviews *de novo*. *In re Pacer Tech.*, 338 F.3d 1348, 1349 (Fed. Cir. 2003). "The Board may not 'rel[y] on new facts and rationales not previously raised to the applicant by the examiner.'" *Rambus Inc. v. Rea*, 731 F.3d 1248, 1255 (Fed. Cir. 2013) quoting *In re Leithem*, 661 F.3d 1316, 1319 (Fed. Cir. 2011)); see also *Leithem*, 661 F.3d at 1319 (stating that even "reliance on the same statutory basis and the same prior art references, alone, is insufficient to avoid making a new ground of rejection when the Board relies on new facts and rationales not previously raised to the applicant by the examiner").

Here, the Board ruled that the Nordella patent is analogous art based on the second analogous art test in *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (Bd.

Dec. at 9-10)(A10-11). However, the Examiner had relied on the first test. RAN, p. 81,84,89,96. (A748,A751,A756,A763).

The case of *In re Bigio* sets forth the tests for defining the scope of analogous art:

Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

381 F.3d 1320, 1325 (Fed. Cir. 2004).

In this case, the Examiner repeatedly stated that the Caster (A1285-1295) and Nordella (A1256-1265) patents were in the same field of endeavor. RAN, p. 81,84,89,96. (A748,A751,A756,A763). However, the Examiner had made a directly contrary finding in an earlier determination dismissing one of the Requester's proposed rejections of claims 12, 13, 19 and 20, i.e., Caster in view of Surbaugh (A1277-1283), saying:

While inducing rocking motion with the draftsman's stool of Surbaugh might be possible, a desirability to achieve a rocking motion with the stool is neither disclosed nor apparent. Accordingly, one of ordinary skill in the art would not have been expected to consider the teachings of Caster and Surbaugh together, because not only are they in different fields of endeavor, their intended functions are not relevant to each other. **Someone in the field of Caster, regarding devices to induce relaxation**

and sleep to sitting infants, would not look to positioned draftsman's stools or to devices which facilitate their positioning, such as taught by Surbaugh [A1277-1283], for driving the rocking motion of an infant rocking chair.

Order on Reexamination 95/001,871, Feb. 14, 2012, at p. 9. (emphasis added)(A1057).

Thus, Examiner found that the "field of endeavor" of Caster, which is not substantially different from the field of invention of the '609 patent, is: "devices to induce relaxation and sleep to sitting infants". Despite this express finding, the Examiner subsequently found that the Caster and Nordella patents were in the same field of endeavor, re-defining the field very broadly as "rocking seats". RAN, p. 81,84,89,96. (A748,A751,A756,A763).

However, in its decision, the Board did not discuss whether Nordella is in the same field as the '609 patent. Instead, the Board used the second test for determining whether Nordella is properly within the scope of the art pertinent to the '609 patent, focusing on the "problem to be solved". The Board found the problem to be solved was one "relating to a mechanism that can cause a chair to move up and down and back and forth." Bd. Dec. at 9.

Under applicable precedent, the Board's rationale constitutes a new ground for rejection, and the Board failed to provide Wonderland with an opportunity to respond to its new grounds for rejecting the claims 12-13, 19-20 and 21-24 as obvious.

B. Nordella does not teach all of the elements of the claims that are not present in Caster.

The Board says that the Examiner had found "that Nordella teaches all the elements of claim 12," citing to page 80 of the RAN(A747). Bd. Dec. at p. 9 (A10). First, the Board's statement is inaccurate. What the Examiner actually said is: "The Nordella patent, however, teaches all of the elements required by claim 12 **which are missing in Caster.**" In addition, claims 13 and 19-20 contain limitations that go beyond or are different from those of claim 12.

Even if the Court determines that Nordella qualifies as analogous art, replacing the drive mechanism of Caster with Nordella's drive mechanism will not result in the invention of claims 12-13 and 19-24. The combination of Caster and Nordella is insufficient to have rendered those claims obvious to a person of ordinary skill in the art at the time of the invention.

1. The Examiner's construction of "bottom seat" is not reasonable, and is not consistent with the specification.

The "broadest reasonable" scope consistent with the specification standard does not mean that claim are read in a vacuum with no attention paid to the specification. *In re Prater*, 56 C.C.P.A. 1381, 1395 (C.C.P.A. 1969)("However, appellants urged that claim 9 cannot be read in a vacuum but instead must be read in the light of the specification. We agree.")

The Board did not address the "bottom seat" limitation of claims 12, 19 and

21 as it applies to Nordella. Instead it simply, but erroneously, concluded that the Examiner had found all the elements of claim 12 in Nordella, and was silent as to any specifics of claims 19 and 21(the other independent claims).

Based on the Board's discussion of "bottom seat" in connection with the Nafte reference (Bd. Dec. at p. 7-8)(A8-9), the Board adopted the Requester's proposed (and extremely broad)⁵ construction of "bottom seat", making no mention of how the term is used in specification or shown in the Figure of the '609 patent. The Examiner and the Board ignored the descriptions in the figures of the '609 patent, which show that a "bottom seat" is referring to the very lowest supporting part of the device. The Board does not hide the fact that it was relying on the claim language alone, saying: "There is nothing in the claim itself that would require such a platform-like structure..." Yet, the specification shows that the term "seat" in the term "bottom seat" is referring to a platform upon which other components are placed, and which cooperates with a housing to form an enclosure.⁶ These

⁵ Based on the Examiner's application of the term "bottom seat" on page 25 of the RAN, his proposed definition of that term only requires that a bottom seat be "below a certain combination of structural components" and that something "sit or rest on it".

⁶ This is consistent with the dictionary definition of "seat":

portions of the specification clearly suggest a platform or plate-like structure, and this is what a person of ordinary skill would understand, based on a review of the specification and drawing. Representative of this are the following:

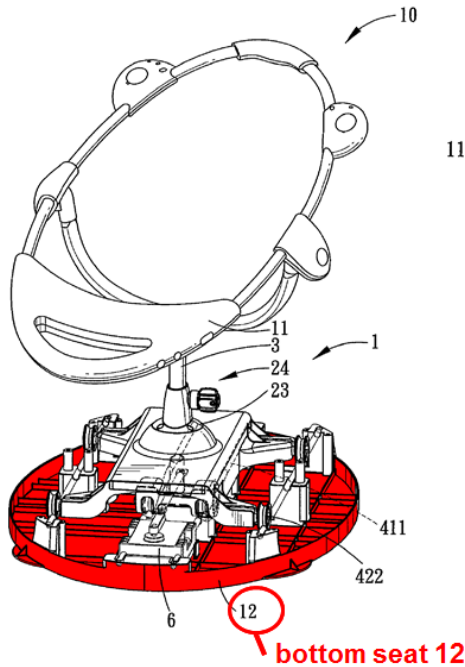


FIG. 2

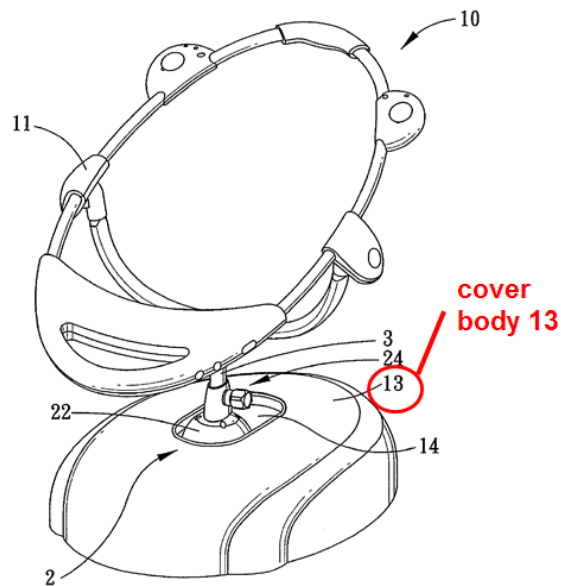


FIG. 6

seat ⁴
(sēt)
n.

1. Something, such as a chair or bench, that may be sat on.
2.
 - a. A place in which one may sit.
 - b. The right to occupy such a place or a ticket indicating this right: *got seats for the concert.*
3. The part on which one rests in sitting: *a bicycle seat.*
4.
 - a. The buttocks.
 - b. The part of a garment that covers the buttocks.
5.
 - a. A part serving as the base of something else.
 - b. The surface or part on which another part sits or rests.
6.
 - a. The place where something is located or based: *The heart is the seat of the emotions.*
 - b. A center of authority; a capital: *the county seat.* See Synonyms at *center*.
7. A place of abode or residence, especially a large house that is part of an estate: *the squire's country seat.*
8. Membership in an organization, such as a legislative body or stock exchange, that is obtained by appointment, election, or purchase.
9. The manner of sitting on a horse: *a fox hunter with a good seat.*

<http://www.thefreedictionary.com/seat>

In contrast, the device of Nordella is designed to be placed in a "trench or hole 62":

The foundation stage assembly **52** and at least a portion of intermediate stage assembly **54** are located within a trench or hole 62 which extends along the direction of the row of seats. The foundation stage 35 assembly **52** includes a horizontal and preferably rectangular frame 64 having front, back and side support members 66. Located at the lower corners of the front

Nordella at Col. 3:32-38 (A1262)(underlining added).

The Examiner identified as the "bottom seat" is the "frame 64" (RAN at p. 33)(A700), but that structure is neither a platform, nor is it at the bottom of the Nordella device:

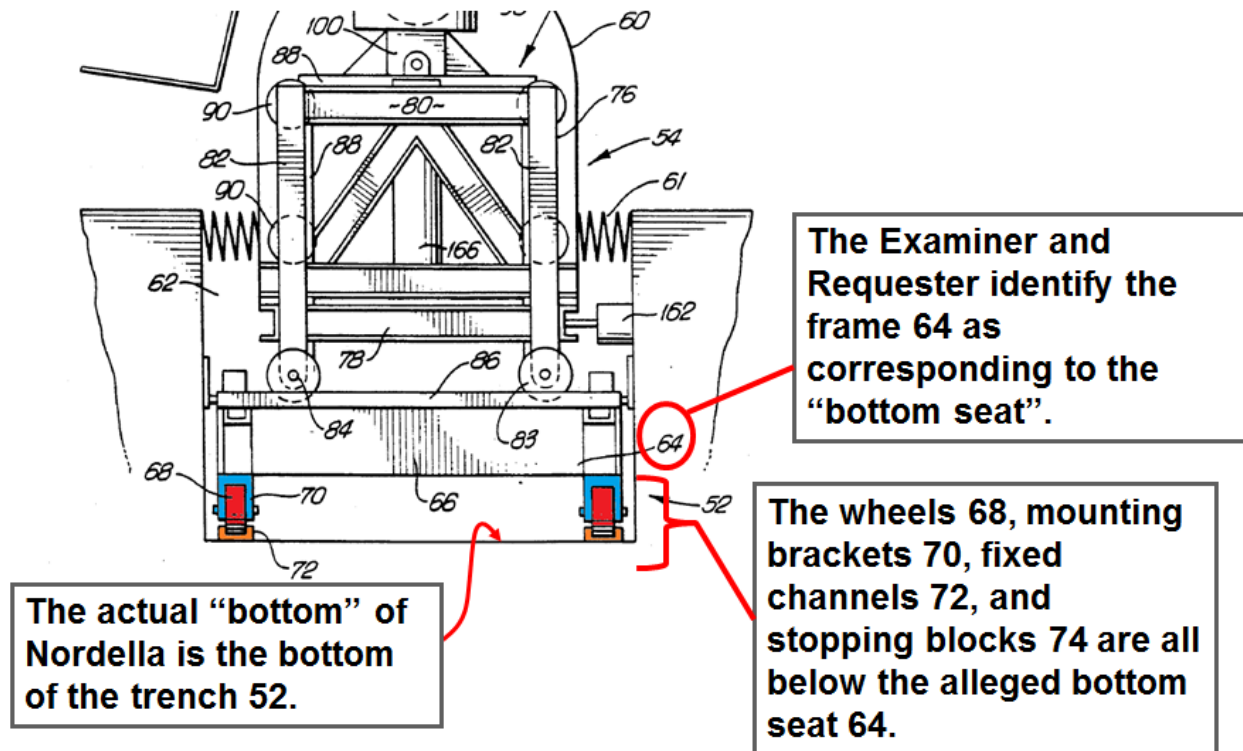


Figure 1 (lower part) of Nordella

Nordella, Fig. 1 (partial) (A1257)(annotations added).

Thus, the Examiner (and by implication, the Board) read the word "bottom" out of the term "bottom seat". The Examiner's construction goes beyond the "broadest reasonable construction" and reaches well in the unreasonable.

An example of what follows from the unreasonable construction of the "bottom seat", is that other limitations are rendered unmet, such as a requirement in both claims 19 and 21 that there be a "first guide path unit adapted to be disposed at the bottom seat." The Examiner identified the "channels 86" (see the above annotated version of Figure 1) as the first guide path unit (RAN at p. 34)(A701), and those channels are not "disposed at" the bottom of the Nordella device, which

renders claims 19 and 21 unmet by Nordella.

2. The Nordella device does not have a "second motion mechanism disposed between said supporting element and said bottom seat".

In its discussion of the Nafte reference, the Board essentially adopts the Examiner's expansive (and novel) construction of the word "between", which the Board describes as "elevational". (A9). This is a construction whereby, if a first item has an elevation that is higher than a second and lower than a third, the first item is between the second and the third items. This is a result-based, but unreasonably broad, construction of the word "between" that has no basis in the specification, or anywhere else.

The ordinary meaning of "between" includes two candidates potentially applicable in this case: 1) the most common meaning - in the space that separates, or 2) a more functional meaning -- from one to another, as in a railroad running between two cities.

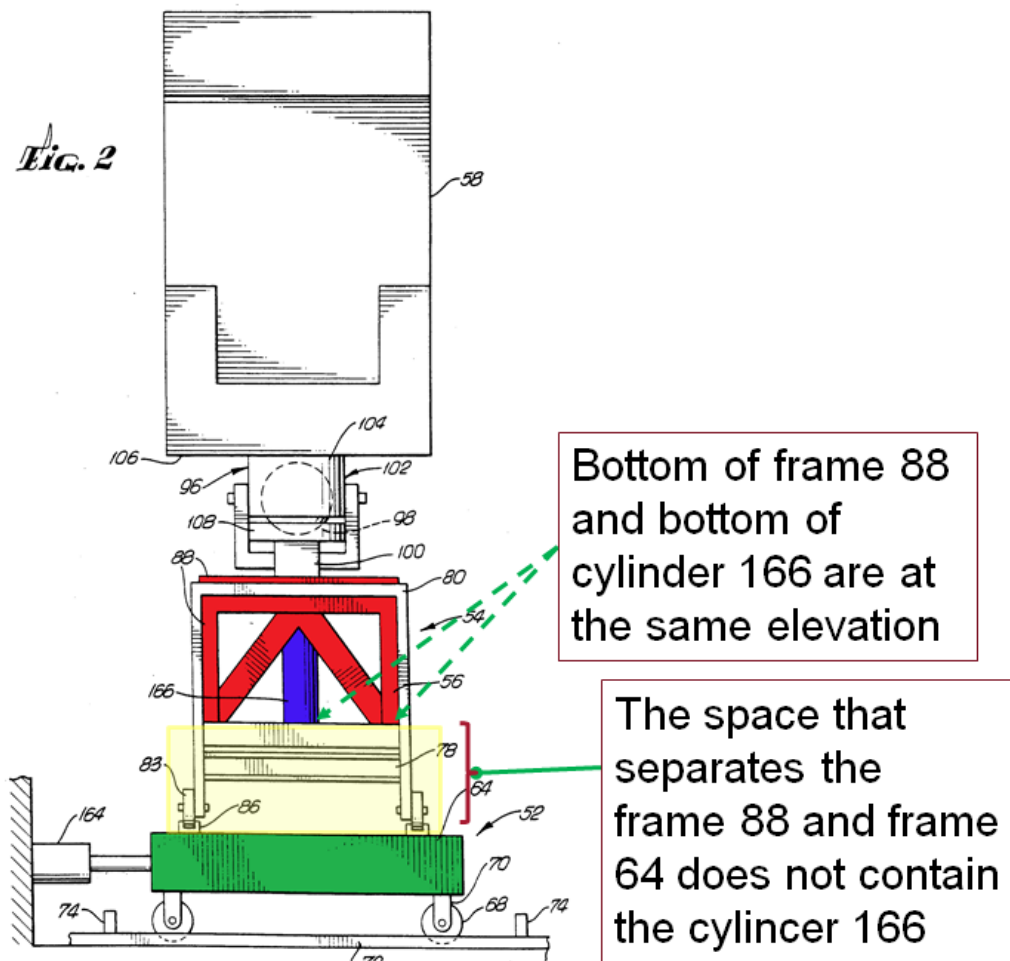
The Examiner in the RAN defined the following elements of Nordella as corresponding to limitations of the claims: 1) the frame 88 corresponds to "the supporting element," 2) the frame 64 corresponds to the bottom seat, and 3) the cylinder 166 corresponds to the second motion mechanism. RAN at p. 33-34(A700-01). The last limitation of Claim 12 requires:

a second motion mechanism disposed between said supporting element and said bottom seat for driving said

supporting element to move up and down relative to said base.

'609 patent claim 12 (last limitation), Col. 8:8-11(A34).

Nordella does not meet this limitation, as shown below, because the cylinder 166 (the "second motion mechanism") is not "between" the frame 88 (the "supporting element") and the frame 66 (the "bottom seat") using either: (a) the Board's "elevational" meaning, or (b) the more common "in the space that separates" meaning.

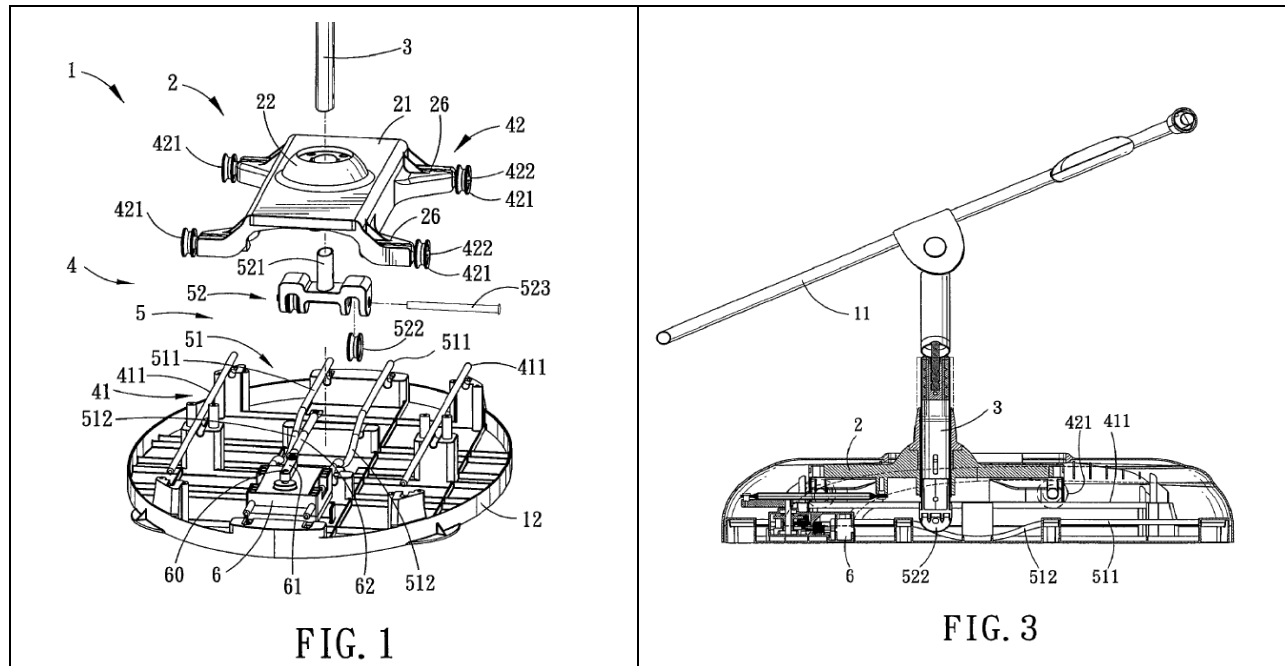


Nordella, Fig. 2 (A1258)(annotations added)

Thus, with the drive mechanism of Nordella replacing the Caster drive mechanism, the combination of Nordella and Caster still do not meet the limitations of at least claim 12, because the second motion mechanism is not between the support element and the bottom seat.

3. Nordella does not show guided vertical motion and, thus, does not render claim 23 obvious.

Claims 21 calls for a "second motion mechanism adapted to be disposed between the seat body and the bottom seat for driving said supporting element to move up and down relative to said first movable member". In the '609 patent shows a set of rails that have a "sunken rod segment (512), along which the "second moveable member 52" travels, as the base is pushed and pulled across the bottom seat (See Figs. 1 (partial) and 3 below)(A15,A18):



The Board sustained the Examiner's rejection of claim 23 which is directed to the guided vertical motion feature:

Claim 23 (new): The infant rocking chair as claimed in claim 21, wherein said second motion mechanism includes a second pair of guiding surfaces spaced apart from each other, and a pair of rollers that are disposed rotatably and that are movable respectively along said guiding surfaces.

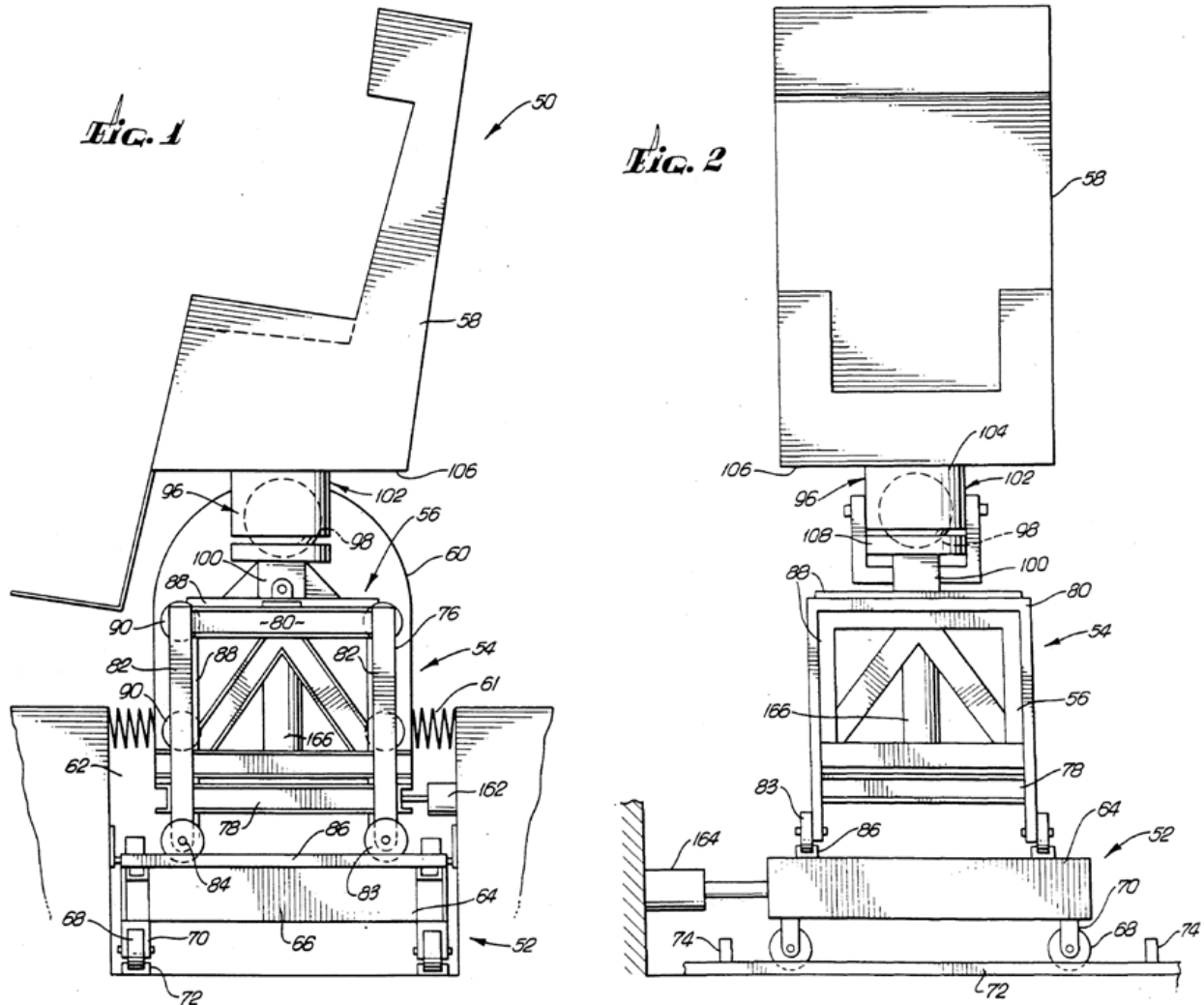
A39-40.

On page 10 of its ruling, the Board cites to the following paragraph in Nordella:

Upward and downward motion of the seat may be
20 obtained by placing a hydraulic cylinder 166 between
the intermediate stage assembly 54 and the seat stage
assembly 56 (FIGS. 1 and 2). As the hydraulic cylinder
166 is activated or deactivated, the seat stage assembly
56 moves upward or downward as the guide wheels 90
25 of the seat stage assembly roll along the channels 94 of
the intermediate stage assembly 54.

Nordella at Col. 6:19-22(A1263).

However, a comparison of the above language with the Figures mentioned show significant errors in the Nordella patent as it relates to guided vertical motion. These include a complete absence of anything corresponding to "channels 94", and substantial inconsistencies between Figures 1 and 2, such as wheels 90 appearing in Figure 1, but not in Figure 2:



Nordella, Figs. 1 and 2 (A1257-58)

It is understandable that there was little attention paid in Nordella to the ability to move the chair vertically, because the focus of the patent (based on what is claimed) appears to have been the "yaw, pitch and roll" motions (i.e., rotational motions), which do not rely on vertical displacement of the chair.

The Board admits, however, Nordella "fails to show its channels 94 in the drawing" (A11), and it is those channel allegedly correspond to the subject matter

of claim 23 of the '609 patent. Bd. Dec. at p. 10 (A11). There is simply no way of knowing how those channels would be configured and how they would interact with the wheels 90. These significant errors were brought to the Board's attention in Wonderland's Appeal Brief at p. 27-28 (A413-14). Yet, the Board does not even address or attempt to explain the second glaring error, i.e., that the wheels are also missing in the front view, which is Figure 2 above.

Important questions arise from the two significant errors in Nordella's incomplete disclosure of vertical motion: 1) where are the channels located? 2) how would the channels be supported? These questions make it clear that considerable design would be required in order to accomplish vertical motion with the Nordella device. Guided vertical motion is simply missing from Nordella, and this means that simply putting the Nordella drive mechanism into a Caster-type soother will not result in the invention of claim 23.

4. The combination of Nordella with a Caster-type seat does not meet claim 24, because the alleged "bottom seat" (the frame 64) is not a "generally flat, plate-like" structure.

The Examiner rejected claim 24 on numerous non-prior art grounds, i.e., §112¶2 (A4, A674), §112¶1 (A4, A679), §314(a) (A4,A674-76). However, the Board only sustained only one of those grounds, and even then only in part, i.e., the term "broad" used in the phrase "broad and generally plate-like structure."

As part of their rejections on prior art grounds, the Examiner and the Board

identified the "frame 64" as corresponding to the "bottoms seat". (A11). However, claim 24 defines the "bottom seat" as a having "a broad **and generally flat plate-like structure.**" (A40). The Board apparently overlooked or ignored the term "generally plate-like structure", because its evaluation of whether the Nordella/Caster combination meets claim 24, only addresses whether the "frame 64" of Nordella is "broad". (A11).

The Nordella patent describes the frame 64 as follows:

direction of the row of seats. The foundation stage 35 assembly 52 includes a horizontal and preferably rectangular frame 64 having front, back and side support members 66. Located at the lower corners of the front

Nordella at Col. 3:35-38(A1262).

There is no depiction (e.g., no plan view or cross-sectional view) or description anywhere in Nordella of a plate-like structure. Based on the consistent use of mere frame-work in the Nordella device, it can only be assumed that the frame members 66 form an opening, and do not form anything that is "plate-like". For this reason, there is no substantial evidence to support the rejection of claim 24 based on the combination of Nordella and Caster.

C. The rejection of claims 1 and 2 based on Nafte and Caster was based on erroneous claim constructions, and was unsupported by substantial evidence.

The Board sustained the Examiner's rejection of claims 1 and 2, based on the

combination of Nafte and Caster. (A8-10). The Board summarized the Examiner's position by saying: "it would have been obvious to replace the cradle portion of Nafte with the infant retaining means of Caster." If Nafte's driving device had all of the limitations of claim 1, then this position might make sense. However, Nafte does not meet the limitations of claim 1, as they relate to the driving mechanism and other structural components.

1. The "cross arms 16" of Nafte are not a "bottom seat" under the broadest reasonable construction of the term "bottom seat".

The cross arms of Nafte are not *at the bottom* of Nafte, and are not a "seat" in any sense of that word that is consistent with the specification of the '609 patent. Thus, because Nafte does not have a bottom seat, as required by claim 1, the combination of a Caster-type seat with the Nafte mechanism would not have rendered claim 1 or claim 2 obvious to a person of ordinary skill at the time of the invention of the '609 patent.

As discussed above, the Board found that the word "bottom" does not necessarily mean "bottom-most", saying that it is sufficient that the element be at the bottom of the elements claimed:

Patent Owner also argues that the term "bottom" should refer "to the very lowest supporting part of the device in question." *Id.* First, we do not agree with the premise that the term bottom must be the bottom-most structure of the device recited in the claims. It is sufficient that the element be at the bottom of the elements claimed. Nafte's cross arms 16 support the

Bd. Dec. at p. 8(A9)

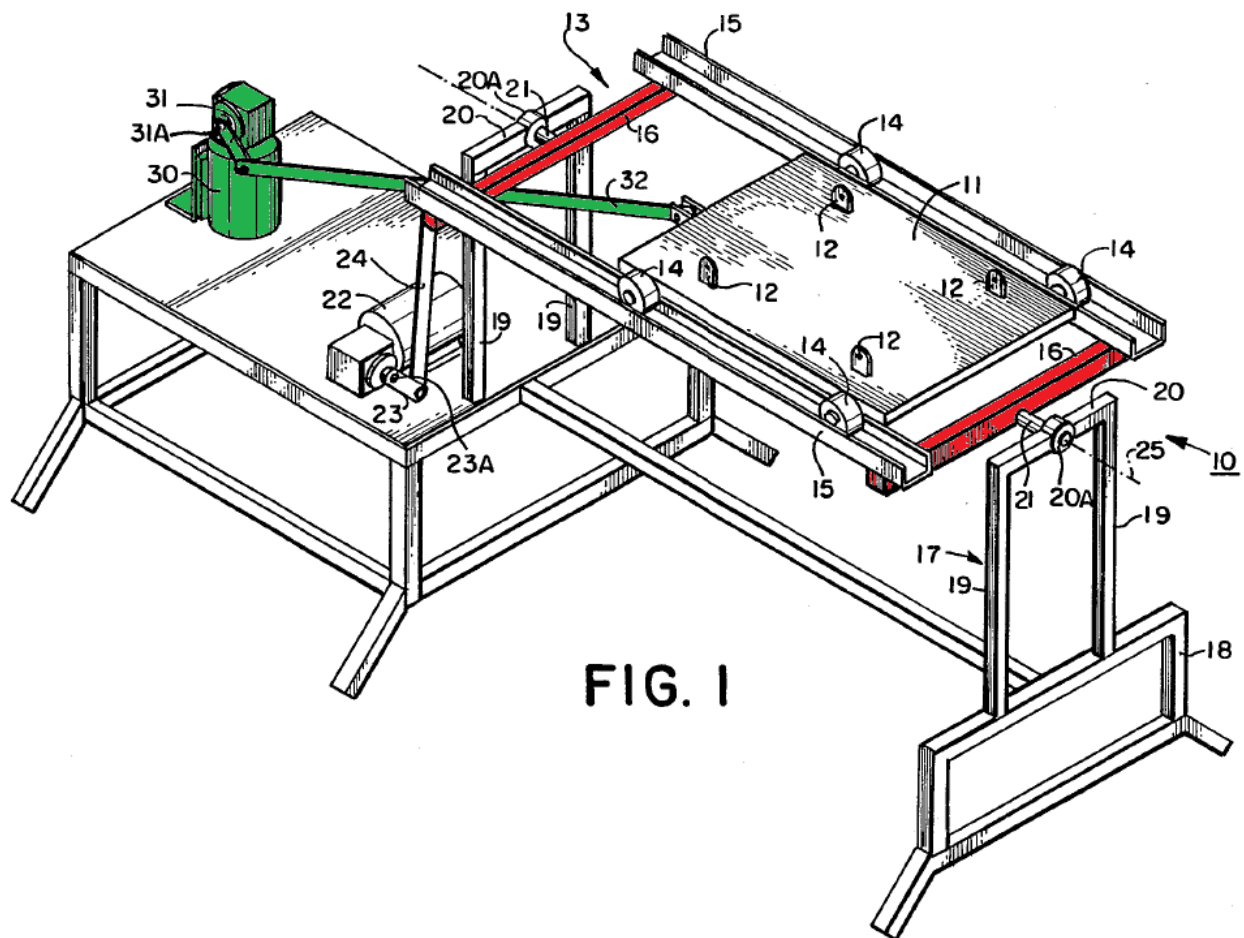
However, claim 1 of the '609 patent expressly recites several components (i.e., the motor, motor shaft, crank and link) that are below the "cross arms 16" of Nafte, as shown in underlined portion of claim 1 below.

We claim:

1. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:
 - a base adapted to be disposed between the seat body and the bottom seat;
 - a supporting element connected to said base and adapted to support the seat body;
 - a first motion mechanism including a horizontal first guide path unit adapted to be disposed at the bottom seat, and a first movable member disposed on said base and movable along said first guide path unit; and
 - a motor for driving said first movable member,
 - wherein said motor includes:
 - a motor shaft,
 - a crank connected fixedly to said motor shaft at one end thereof, and
 - a link having two ends connected respectively and pivotally to said base and the other end of said crank such that rotation of said motor shaft results in reciprocal movement of said first movable member.

'609 patent, Col. 6:47-67(A33)

The structures that allegedly correspond to the underlined portion of claim 1 above (elements 30, 31, 31A and 32) are highlighted in green in the following annotated version of Figure 1 of Nafte:



Nafte US 8,047,609, Fig. 1 (color added)(A1248).

Thus, under the Board's own express criteria (i.e., "being at the bottom of the elements claimed"), Nafte's "cross arms 16" do not qualify as being a "bottom seat".

The Board tries to justify its, and the Examiner's, unreasonably broad definition of "bottom seat" by raising an inapt hypothetical, wherein a bottom seat

would no longer be at the bottom if "some kind of elevating device such as a highchair frame" is used with an infant rocker. However, while Wonderland's position is that a "bottom seat" should be at the bottom of the rocking chair to meet the claim, Wonderland is not relying on the substructure (i.e., base 18 in the Figure 1, reproduced above) to differentiate the Nafte device. As the Board said: it is sufficient that the bottom seat "be at the bottom of the elements claimed". Bd. Dec. at 8, lines 4-5(A9). Nafte's "cross arms 16" simply do not meet the Board's own criteria for what is a "bottom seat".

2. The platform 11 (the alleged "base") of a Nafte/Caster combination is not "disposed between" a seat body and the cross-arms `6 (the alleged bottom seat).

The ordinary meaning of "between" is "in the space that separates". See <http://www.merriam-webster.com/dictionary/between>. As discussed above, the Board adopts a novel "elevational" definition, apparently based on the Examiner "unique" definition. On page 21 of the RAN, the Examiner said:

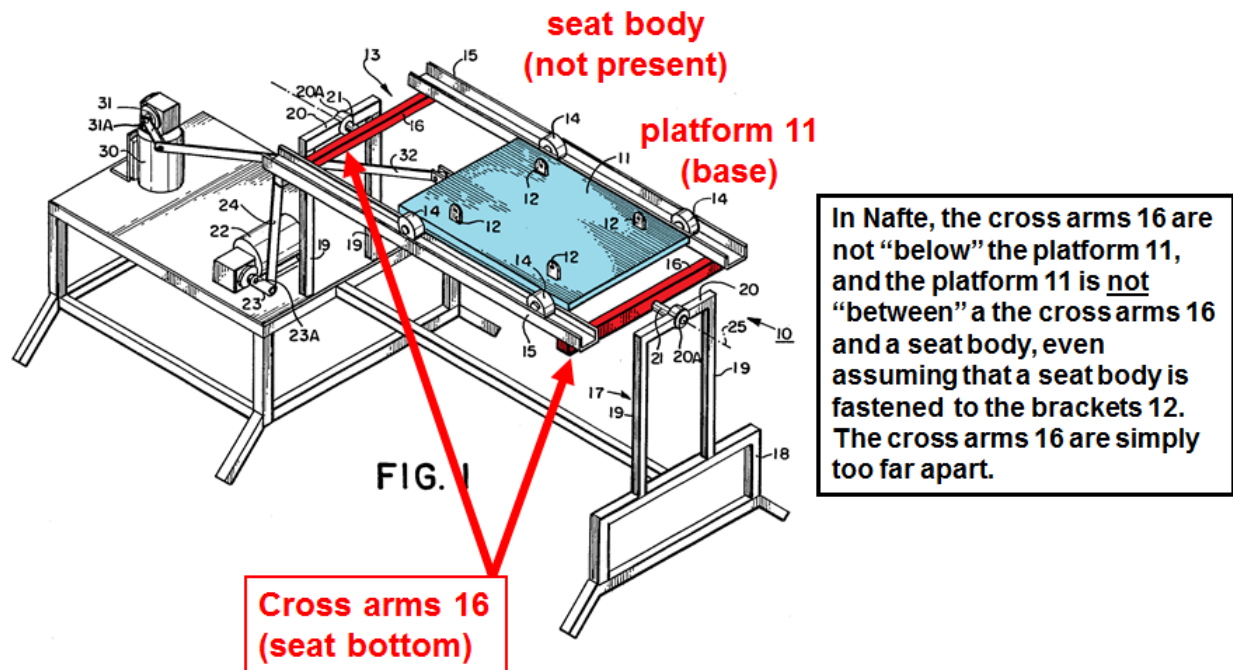
The language in claim 1 regarding the base being "adapted to be disposed between the seat body and the bottom seat" is firstly met because, as pointed out by Requester, the bottom seat/cross arm 16 **is below** the base/platform 11, **which is below** the seat body that will be held by the brackets. (emphasis added)

RAN, p. 21(A688).

The "elevational" approach to the meaning of between focuses solely on relative **elevation** (what is "below" something else). There is simply no basis,

other than hindsight, to arrive as such a definition.

The following annotated version of Figure 1 of Nafte shows that cross arm 16 is "below the base/platform 11", because neither of the cross arms is actually below the platform 11:



The Nafte Patent

Nafte US 8,047,609, Fig. 1 (color added)(A1248).

In fact, the closer the platform 11 gets to one of the cross-arms, the farther it gets away from the other. Claim 1 calls for the base (which the Examiner says is met by Nafte's platform 11) to be "disposed between" the bottom seat (which the Examiner says is met by the cross-arms 16) and a seat body (not shown, but for argument's sake imagined to be a Caster-type seat mounted to the lugs 12

extending upwardly from platform 11). When trying to determine whether the base is "disposed between" the recited elements in accordance with claim one, the absence of a broad, plate-like structure is problematic. The platform 11 may approach a position that is between the seat body and one arm, but not both. If it is assumed that *the combination* of the two arms 16 is being alleged to meet the bottom seat limitation, then it is only fair to assume that the platform must be "disposed between" both arms 16, which it clearly is not.

Also, in the '609 patent the base is always disposed between the set body and the bottom seat (because the bottom seat is wide and plate-like). However, the platform 11 of Nafte (the alleged base) is "disposed between", if at all, only one arm and only for short intervals during operation of the Nafte device.

It is not reasonable to have two arms define the "bottom seat" for some purposes, but have only one arm count for others. Thus, even if the very broad construction proposed by the Examiner (and the Requester) is correct, the Patent Owner contends that the "disposed between" limitation is not met by the Nafte device, because both arms, not just one arm, constitute the "bottom seat". This means that the base is never "disposed between" the seat body and the bottom seat, because the platform only approaches a location where the base is even arguably "disposed between" one of Nafte's arms 16 and a seat body, and is never disposed between both arms.

Thus, the Nafte (equipped with a Caster-type seat) does not render claim 1 or 2 obvious for the following reasons: 1) the combination lacks a bottom seat, because that term should be construed as a plate-like structure, and/or 2) because the platform 11 (the alleged "base) of Nafte is not "disposed between" the alleged bottom seat (i.e., the cross-arms 16) and a seat body.

D. The use of the term "broad" in Claim 24 does not render that claim indefinite.

The standard for indefiniteness is "whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004). This standard requires "that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129, 189 L. Ed. 2d 37 (2014).

"Claim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014) citing, *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U.S. 45, 65-66, 43 S. Ct. 322, 67 L. Ed. 523, 1923 Dec. Comm'r Pat. 623 (1923) (finding "substantial pitch" sufficiently definite because one skilled in the art "had no difficulty . . . in determining what was the substantial pitch needed" to

practice the invention).

In *Nautilus*, the Supreme Court acknowledged that, "absolute precision" in claim language is "unattainable." *Nautilus*, 134 S. Ct. at 2129; see also *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1335 (Fed. Cir. 2010) (holding that the claim phrase "not interfering substantially" was not indefinite even though the construction "define[d] the term without reference to a precise numerical measurement"); *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1384 (Fed. Cir. 2005) ("[A] patentee need not define his invention with mathematical precision in order to comply with the definiteness requirement.").

"There is no requirement that the words in the claim must match those used in the specification disclosure," and "Obviously, . . . the failure to provide explicit antecedent basis for terms does not always render a claim indefinite." *In re Skvorecz*, 580 F.3d 1262, 1268-1269 (Fed. Cir. 2009) (reversing the Board's finding of indefiniteness) quoting the MPEP § 2173.02 states: "Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire."

The Board sustained the Examiner's rejection of claim 24, based on the use of the word "broad". Wonderland added Claim 24 (and included the term "broad") to further differentiate the claims from references like Nafte and Nordella. See

Patent Owner's Response to First Office Action at p. 22(A1013).⁷

Thorley did not propose an indefiniteness (35 USC § 112, ¶2) rejection of claim 24 based on use of the term "broad" (ACP at. p. 8)(A893), but *did* propose a rejection for lack of written description (35 USC § 112, ¶1) based on the use of that term. In response to Thorley's proposed written description rejection, the Examiner's made following statement explaining the decision not to adopt the proposed rejection:

However, although the specification fails to use the term "broad" to describe the "bottom seat," one may easily determine, for example from Figure 2, that the bottom seat of the invention is wide relative to other elements, such as the base 2 or the rods 411, 511, and it is thus *broad*.

ACP at. p. 8, (A893) and RAN at p. 13 (A680).

The Board 's decision contains contradictory statements about even its own ability to determine breadth. At one point the Board says that there is no way to tell when a plate-like structure (i.e., a bottom seat) is or is not "broad" per claim 24:

⁷ The "broadest reasonable" claim construction standard "is justified, at least in part, because a patentee is able to amend its claims during reexamination." *Cisco Sys. v. Lee (In re Teles AG Informationstechnologien)*, 557 Fed. Appx. 963, 969 (Fed. Cir. 2014), citing *Exxon Research & Eng'g Co. v. United States*, 265 F.3d 1371, 1380 (Fed. Cir. 2001).

RAN 8. Put another way, we find insufficient basis on this record for one of skill in the art to know when a plate-like structure is sufficiently "broad" to be considered "broad" per claim 24 or when a plate-like structure ceases to be "broad." Accordingly, we find this term indefinite and sustain the Examiner's rejection of claim 24. We do not, however, sustain the Examiner's rejection of claims 21-23 as indefinite.

Bd. Dec. at p. 5 (A6)

However, it had no difficulty finding that the "frame 64", and makes a statement directly contrary to the above, saying it only has difficulty determining when something "ceases to be broad":

Lastly, although we found claim 24 indefinite due to the term "broad," with respect to claim 24 we agree with the Examiner that in the context of Nordella, "rectangular frame 64 may be considered 'broad' because it is wide in comparison to some of the other elements." RAN 39. As noted above, we do not find claim 24 indefinite because it is unclear what *can* be considered broad, but because there is no discernable way to determine when something *ceases* to be broad. Accordingly, we sustain the Examiner's obviousness rejection over Caster and Nordella.

Bd. Dec. at p. 10 (A11).

It is incredible for the Board to say that it can determine when something *is* broad, but cannot determine when something *is not*. Because claims use words to describe inventions, "absolute precision" is "unattainable." *Nautilus*, 134 S. Ct. at 2129. Yet, the Board seems to be demanding such precision in claim 24, despite

having no apparent difficulty in finding that the frame 64 of Nordella meets that limitation. (A11).

The term "broad" is ubiquitous in patent claims.⁸ As noted by Wonderland in its Evidence Appendix , at least one district judge found that the term "broad" was so clear on its face that it needed no construction. *FlexHead Indus. v. Easyflex, Inc.*, 2008 U.S. Dist. LEXIS 91848 (D. Mass. Nov. 3, 2008)("The ordinary meaning for "broad" is easily understood, and no additional clarification is necessary.")(A482). This is essentially the same position that the Examiner took in refusing to adopt Thorley's proposed rejection for lack of written description.

In summary, the Examiner finds it "easy" to determine that the bottom seat of the '609 patent is broad, and the Board had no difficulty determining that Nordella's "frame 64" is broad. Yet, both the Examiner and the Board ruled that claim 24 is indefinite, as a matter of law, for use of an term used in thousands of patent claims just in the past few years. Under the standard set forth in *Nautilus*, claim 24 is simply not invalid for indefiniteness.

⁸ A LEXIS search of the word "broad" in claims of issued patents shows that 2,557 patents granted *after 2010* use the term (Search: CLAIMS(broad) and date aft 2011).

II. CONCLUSION AND STATEMENT OF RELIEF SOUGHT

For the reasons outlined above, the PTO Patent Trial and Appeal Board erred in sustain the Examiner's rejections of the claims under reexamination.

This Court should reverse the Board's decisions: (a) that claims 12, 13, and 19-24 are obvious in view of the combination of Caster and Nordella, (b) that claims 1 and 2 are obvious in view of Caster and Nafte, and (c) that claim 24 is indefinite based on the use of the word "broad".

In the alternative, the Court should remand this case for consideration of Wonderland's appeal, including full review of the Examiner's final decision, because the Board's decision was based on a new ground for rejection.

Dated: December 8, 2014

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ADDENDUM

ADDENDUM

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EXAMINER

FOSTER, JIMMY G

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THORLEY INDUSTRIES LLC
Third Party Requester/Respondent

v.

WONDERLAND NURSERY GOODS CO., LTD.
Patent Owner/Appellant

Appeal 2014-002821
Reexamination Control 95/001,871
U.S. Patent No. 8,047,609 B2¹
Technology Center 3900

Before: JEFFREY B. ROBERTSON, DANIEL S. SONG, and
BRETT C. MARTIN, *Administrative Patent Judges*.

MARTIN, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Issued on November 1, 2011 to Chen et al. (hereinafter referred to as the '609 patent).

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STATEMENT OF THE CASE

Patent Owner/Appellant appeals under 35 U.S.C. §§ 134(b) and 315 from the Examiner's rejection of claims 1, 2, 12, 13, and 19-24. Claims 21-24 were newly added during the reexamination proceeding. We have jurisdiction under 35 U.S.C. §§ 134 and 315.

We are informed that the '609 patent is involved in a litigation entitled *Wonderland Nurserygoods Co. Ltd. v. Thorley Industries LLC d/b/a 4MOMS*, Western District of Pennsylvania (Civil Action No. 12-196). Resp. Br. 2.

We AFFIRM.

THE INVENTION

Patent Owner's invention is directed to "a driving device for driving a seat body of an infant rocking chair to move back and forth as well as up and down." Spec., col. 1, ll. 17-19. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:
 - a base adapted to be disposed between the seat body and the bottom seat;
 - a supporting element connected to said base and adapted to support the seat body;
 - a first motion mechanism including a horizontal first guide path unit adapted to be disposed at the bottom seat, and a first movable member disposed on said base and movable along said first guide path unit; and
 - a motor for driving said first movable member, wherein said motor includes:

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a motor shaft,
a crank connected fixedly to said motor shaft at one end thereof, and
a link having two ends connected respectively and pivotally to said base and the other end of said crank such that rotation of said motor shaft results in reciprocal movement of said first movable member.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Surbaugh	US 3,993,280	Nov. 23, 1976
Nafte	US 4,752,980	June 28, 1988
Nordella	US 5,022,708	June 11, 1991
Kanaya	US 5,257,851	Nov. 2, 1993
Caster	US 5,711,045	Jan. 27, 1998

THE REJECTIONS ON APPEAL

The Examiner made the following rejections:

1. Claims 21-24 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. RAN 7.
2. Claims 21-24 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. RAN 12.
3. Claims 21-24 stand rejected under 35 U.S.C. § 314(a) as enlarging the scope of the claims of the patent being reexamined. RAN 9.

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4. Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nafte. RAN 16.
5. Claims 12, 13, and 19-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nordella. RAN 31.
6. Claims 12, 13, and 19-22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kanaya. RAN 52.
7. Claims 19 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Surbaugh. RAN 74.
8. Claims 12, 13, and 19-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Caster and Nordella. RAN 79.
9. Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nafte and Caster. RAN 98.

ANALYSIS

Indefiniteness

The Examiner rejects claim 21, and therefore also dependent claims 22-24, as indefinite for lack of antecedent basis for the claim term "the driving device." RAN 7. We agree with Patent Owner that a person of ordinary skill in the art would "recognize that the word 'the' should have been 'a', based on a reading of the specification and other claims." App. Br. 6. Accordingly, we do not sustain this rejection.

The Examiner separately rejects claim 24 as indefinite because of the phrase "broad and generally flat plate-like structure." RAN 7-8. We agree with Patent Owner that the portion of the language at issue reciting a "generally flat plate-like structure" is sufficiently clear so as not to be

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indefinite. App. Br. 6. Both the Examiner and the Requester point to the fact that the patent discloses other structures, such as a raised edge and protrusions that cause it not to be a "generally flat plate-like structure." We find this to be too narrow a reading of the claim language. Although there may be other structures on the bottom seat, such structures do not preclude the overall element from being generally flat and plate-like.

We cannot agree, however, that the term "broad" is definite in this case. App. Br. 7. The term "broad" does not appear anywhere in the patent, except in claim 24. As a result, the Specification is not availing as an aid to further explain what is meant by the term as it appears in the claim. Further, we find unpersuasive Patent Owner's citation to the dictionary and a district court case as proof that the term needs no construction and is therefore definite. App. Br. 7. Claim construction is contextual and simply because the same term has been found definite in other contexts does not necessarily mean it is definite in all contexts. In this case, we agree with the Examiner that "[w]hile it is possible that 'broad,' and 'narrow,' might be used together in a definite manner as part of a distinguishing comparison between two identified elements, there is no indication of this occurring in claim 24."

RAN 8. Put another way, we find insufficient basis on this record for one of skill in the art to know when a plate-like structure is sufficiently "broad" to be considered "broad" per claim 24 or when a plate-like structure ceases to be "broad." Accordingly, we find this term indefinite and sustain the Examiner's rejection of claim 24. We do not, however, sustain the Examiner's rejection of claims 21-23 as indefinite.

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Written Description

The Examiner rejects claims 21-24 as failing to comply with the written description requirement, because claim 21 recites the driving device as including the bottom seat, whereas the Specification does not describe the bottom seat as being part of the driving device, but only as part of the overall chair. Although we agree that there is some inconsistency in claim 21 vis-à-vis the Specification, we do not agree that this rises to the level of a lack of written description. In the case of claim 21, we find that one of skill in the art would understand that the bottom seat is part of both the overall infant chair and could be part of the driving device, even though it is not specifically described as such. The Specification describes that the driving device drives the seat body relative to the bottom seat. *See Spec.*, col. 3, ll. 22-32. As long as the seat body moves relative to the bottom seat, then it follows that the driving device could be part of either, or a separate device that is still part of the overall infant seat as described in the Specification. The inconsistency is one of nomenclature, but not one that requires a finding that the inventor was not in possession of what is claimed, as would be required to uphold the rejection. Accordingly, we do not sustain the Examiner's rejection of claims 21-24 based on written description.

Scope Enlargement

The Examiner states that "[t]o the extent that recitation of the 'driving device' in claim 21 might not be intended by Patent Owner to be set forth structurally in the claim, but instead as a part of function, such claim is then broader." RAN 9. As pointed out by Patent Owner, claim 19 "uses the very language in claim 21 that Examiner says is the basis for his rejection." App.

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Br. 7. We agree and find that claim 21 is no broader than at least claim 19. Accordingly, we do not sustain this rejection.

Unpatentability over Nafte and Caster

The Examiner rejects claims 1 and 2 as obvious over the combination of Nafte and Caster. RAN 98. The Examiner finds that Nafte teaches every element of claims 1 and 2, but because Nafte's device is for rocking a cradle, it fails to specifically teach that it is for an infant rocking chair. RAN 100. The Examiner then finds that Caster teaches an apparatus for rocking an infant chair and concludes that it would have been obvious to replace the cradle portion of Nafte with the infant retaining means of Caster. *Id.*

Patent Owner does not argue that the combination is improper, but instead relies upon its argument that Nafte fails to teach certain elements, namely the "bottom seat" and "disposed between" elements, as argued against the Examiner's anticipation rejection over Nafte alone. App. Br. 45. Patent Owner argues that the bottom seat "is referring to a platform upon which several other components are placed, and which cooperates with a housing to form an enclosure." App. Br. 15. Patent Owner further argues that this language "clearly suggests a platform-like structure, i.e., a generally flat area with significant breadth or surface area." *Id.* In this case, Patent Owner improperly attempts to import limitations from the Specification into the construction of this term. There is nothing in the claim itself that would require such a platform-like structure and it is clear that Nafte's cross arms 16 meet the claimed bottom seat in that it is part of the driving device and is located such that the base is between the seat body and the bottom seat as discussed *infra*.

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Patent Owner also argues that the term "bottom" should refer "to the very lowest supporting part of the device in question." *Id.* First, we do not agree with the premise that the term bottom must be the bottom-most structure of the device recited in the claims. It is sufficient that the element be at the bottom of the elements claimed. Nafte's cross arms 16 support the portion of the mounting device for the item to be rocked corresponding to the elements recited in the claims (in Nafte's case a cradle, which the Examiner modifies to be a rocking chair as taught in Caster). The fact that there is additional structure below cross arms 16 is unavailing. The claim language utilizes the open-ended term "comprising," which allows for the inclusion of additional structure. Patent Owner's argument is consistent with a position that, should the device recited in the claims be mounted to an additional structure, i.e., some kind of elevating device such as a high chair frame, the bottom seat would cease to be a bottom seat because it would no longer be the bottom-most element. We decline to adopt such a construction in view of the language in the claims.

Patent Owner's final argument is that Nafte fails to teach that the base is between the seat body and the bottom seat. *See* App. Br. 16-18. Whereas from an elevational standpoint, Nafte's platform 11 is between the seat body (which is to be mounted to and above platform 11) and the bottom seat (Nafte's cross arm's 16), Patent Owner argues, that because cross arms 16 sit outside of the footprint of platform 11 that it is not between cross arms 16 and the seat body. App. Br. 16-17. We do not read the claim language as requiring the base being "between" in every manner conceivable nor has Patent Owner pointed to any disclosure in the Specification requiring such a

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narrow reading. In this instance, the fact that it is "between" from an elevational standpoint is sufficient to meet the claim language. Accordingly, we sustain the Examiner's rejection of claims 1 and 2 as unpatentable over Nafte and Caster.

Unpatentability over Caster and Nordella

The Examiner rejects claims 12, 13, and 19-24 as obvious over the combination of Caster and Nordella. RAN 79. The Examiner finds that Caster generally discloses a device for rocking an infant chair, "but fails to disclose all of the structure by which the rocking motion is achieved and the seat body is supported." RAN 80. The Examiner then finds that Nordella teaches all of the elements of claim 12. *Id.*

Patent Owner first attacks the combination as improper because Nordella is not analogous art. App. Br. 40. Patent Owner argues that Nordella is not pertinent to the particular problem to be solved because "Nordella's target user is an *adult*, whereas the invention of the '609 [patent] is focused on *children*," and that "the '609 patent's objective is to *induce sleep*." App. Br. 42. We find this to be an overly narrow description of the problem to be solved. More generally, we view the problem to be solved as more properly described as relating to a mechanism that can cause a chair to move up and down and back and forth. Even if we were to narrow the problem to be solved to such motion so as to induce sleep in an infant, Patent Owner has submitted no evidence that the device disclosed in Nordella would be incapable of moving a chair in such a fashion. Nordella discloses the use of hydraulic cylinders to create the claimed motion and without evidence to the contrary, we discern no reason that one of skill in the

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art would be incapable of creating such motion using the device disclosed in Nordella.

Patent Owner argues also that Nordella "does not enable vertical motion because there is no disclosure of channels 94 that support that motion." App. Br. 45. Nordella discloses that "[u]pward and downward motion of the seat may be obtained by placing a hydraulic cylinder 166 between the intermediate stage assembly 54 and the seat stage assembly 56 (FIGS. 1 and 2)." Spec., col. 6, ll. 19-22. Nordella then goes on to explain that "seat stage assembly 56 moves upward or downward as the guide wheels 90 of the seat stage assembly roll along the channels 94 of the intermediate seat stage assembly 54." Spec., col. 6, ll. 23-26. Although it may be true that Nordella fails to specifically show its channels 94 in the drawings, we do not agree that Nordella lacks enablement for this aspect. It is clear from the Specification that wheels 90, which are shown in the drawings, are intended to roll within channel 94. One of skill in the art would clearly understand how to implement the guided vertical motion when taking the drawings in combination with the disclosure.

Lastly, although we found claim 24 indefinite due to the term "broad," with respect to claim 24 we agree with the Examiner that in the context of Nordella, "rectangular frame 64 may be considered 'broad' because it is wide in comparison to some of the other elements." RAN 39. As noted above, we do not find claim 24 indefinite because it is unclear what *can* be considered broad, but because there is no discernable way to determine when something *ceases* to be broad. Accordingly, we sustain the Examiner's obviousness rejection over Caster and Nordella.

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Remaining Rejections

Because the sustained rejections reach all of the claims at issue, we decline to reach the remaining anticipation rejections over Nafte, Nordella, Surbaugh, and Kanaya.

DECISION

For the above reasons, we AFFIRM the Examiner's decision to reject claim 24 as indefinite; claims 1 and 2 as unpatentable over Nafte and Caster; and claims 12, 13, and 19-24 as unpatentable over Caster and Nordella. We REVERSE the Examiner's decision to reject claims 21-23 as indefinite; claims 21-24 as failing to comply with the written description; and claims 21-24 as enlarging scope.

Requests for extensions of time in this *inter partes* reexamination proceeding are governed by 37 C.F.R. §§ 1.956 and 41.77(g).

In the event neither party files a request for rehearing within the time provided in 37 C.F.R. § 41.79, and this decision becomes final and appealable under 37 C.F.R. § 41.81, a party seeking judicial review must timely serve notice on the Director of the United States Patent and Trademark Office. *See* 37 C.F.R. §§ 90.1 and 1.983.

AFFIRMED

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(12) **United States Patent**
Chen et al.

(10) **Patent No.:** **US 8,047,609 B2**
(45) **Date of Patent:** ***Nov. 1, 2011**

(54) **INFANT ROCKING CHAIR AND DRIVING DEVICE FOR DRIVING THE SAME**

(75) Inventors: **Shun-Min Chen**, Taipei (TW); **Jun-Xu Jin**, Taipei (TW)

(73) Assignee: **Wonderland Nursery Good Co., Ltd.**, Taipei (TW)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/959,873**

(22) Filed: **Dec. 3, 2010**

(65) **Prior Publication Data**

US 2011/0074196 A1 Mar. 31, 2011

Related U.S. Application Data

(62) Division of application No. 11/819,643, filed on Jun. 28, 2007, now Pat. No. 7,845,728.

(30) **Foreign Application Priority Data**

Jan. 26, 2007 (CN) 2007 2 0002699 U

(51) **Int. Cl.**

A47D 13/10 (2006.01)

A63G 13/00 (2006.01)

(52) **U.S. Cl.** **297/274**; 297/260.1; 297/260.2; 297/261.1; 297/261.2; 472/97; 472/135

(58) **Field of Classification Search** 297/258.1, 297/260.2, 261.1, 261.2, 261.3, 274, 275; 472/47, 95, 96, 97, 135

See application file for complete search history.

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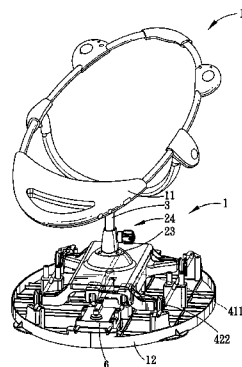
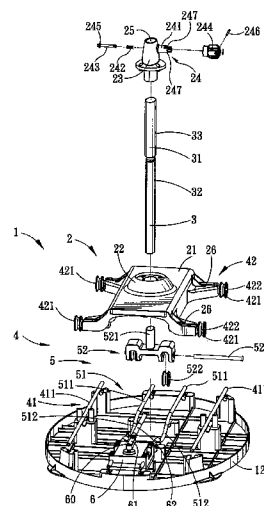
Primary Examiner — Rodney B White

(74) *Attorney, Agent, or Firm* — Pillsbury Winthrop Shaw Pittman, LLP

(57) **ABSTRACT**

A driving device is adapted for an infant rocking chair. The rocking chair includes a seat body and a bottom seat. The driving device includes a base, a supporting element, first and second motion mechanisms, and a power mechanism. The first motion mechanism includes a horizontal first guide path unit disposed at the bottom seat, and a first movable member disposed on the base and movable along the first guide path unit. The second motion mechanism includes a vertically varying second guide path unit disposed at the bottom seat, and a second movable member movable along the second guide path unit and vertically relative to the base. The supporting element interconnects fixedly the seat body and the second movable member. The power mechanism drives reciprocal movement of the first and second movable members.

20 Claims, 16 Drawing Sheets



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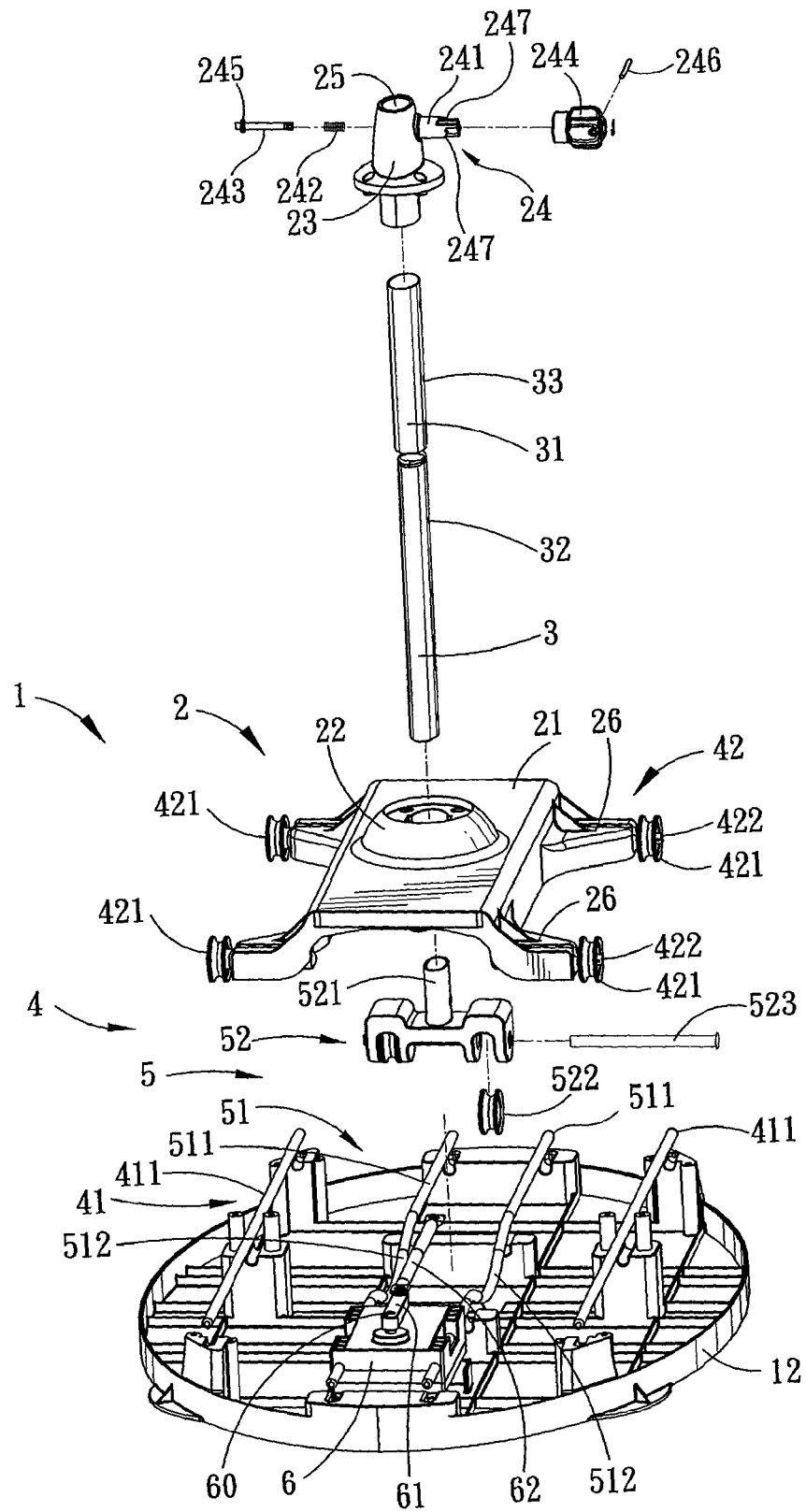


FIG. 1

A15

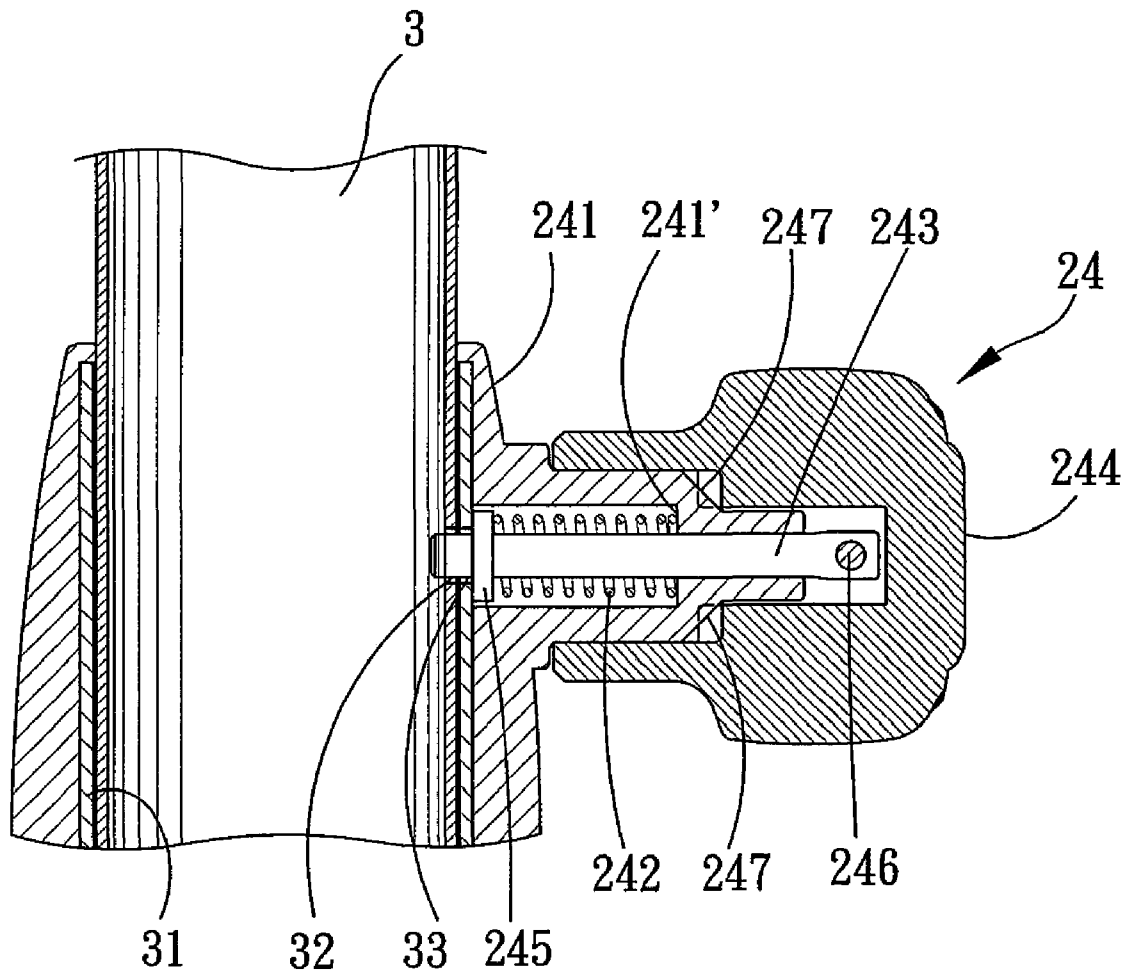


FIG. 1A

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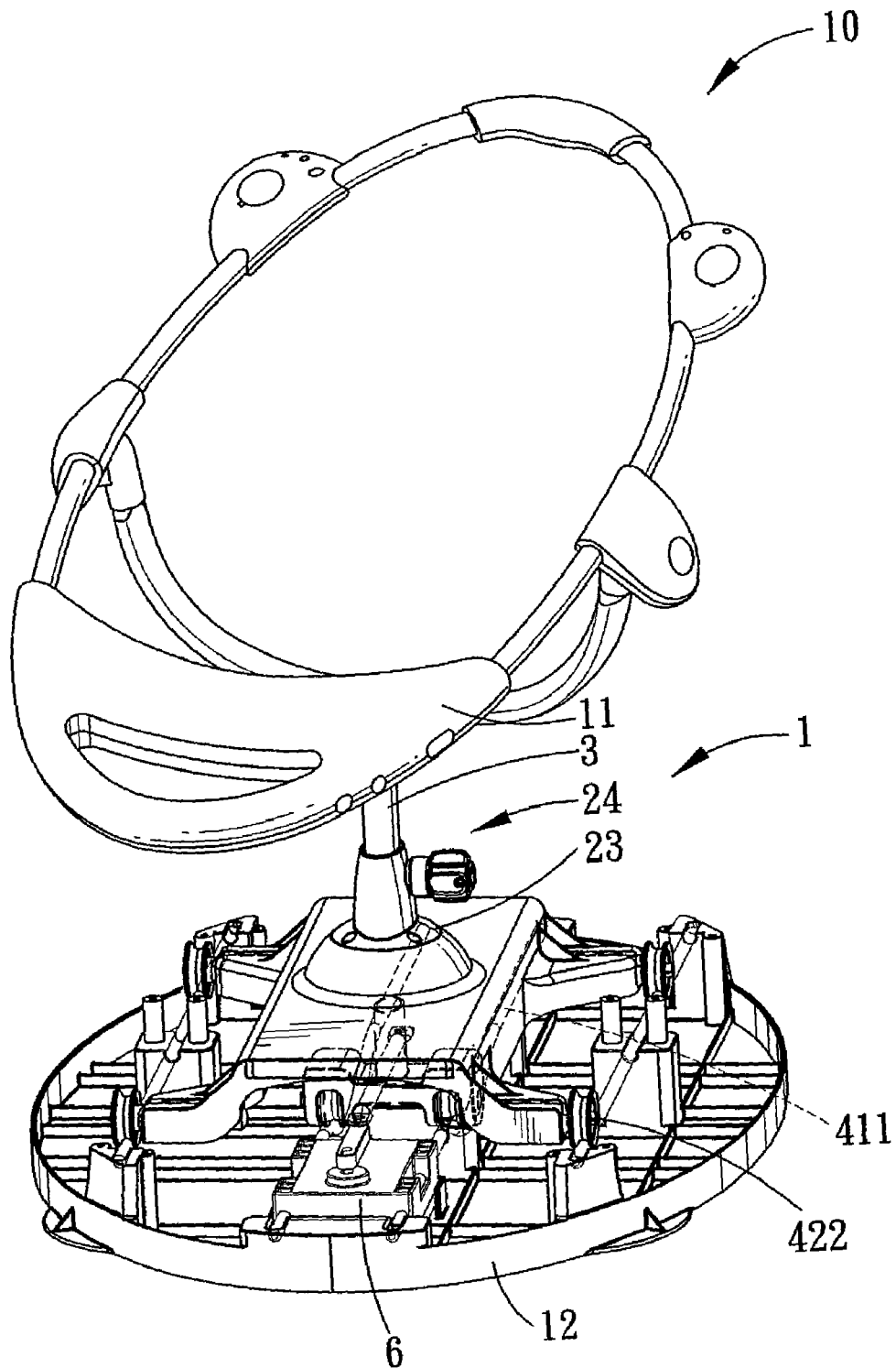


FIG. 2

A17

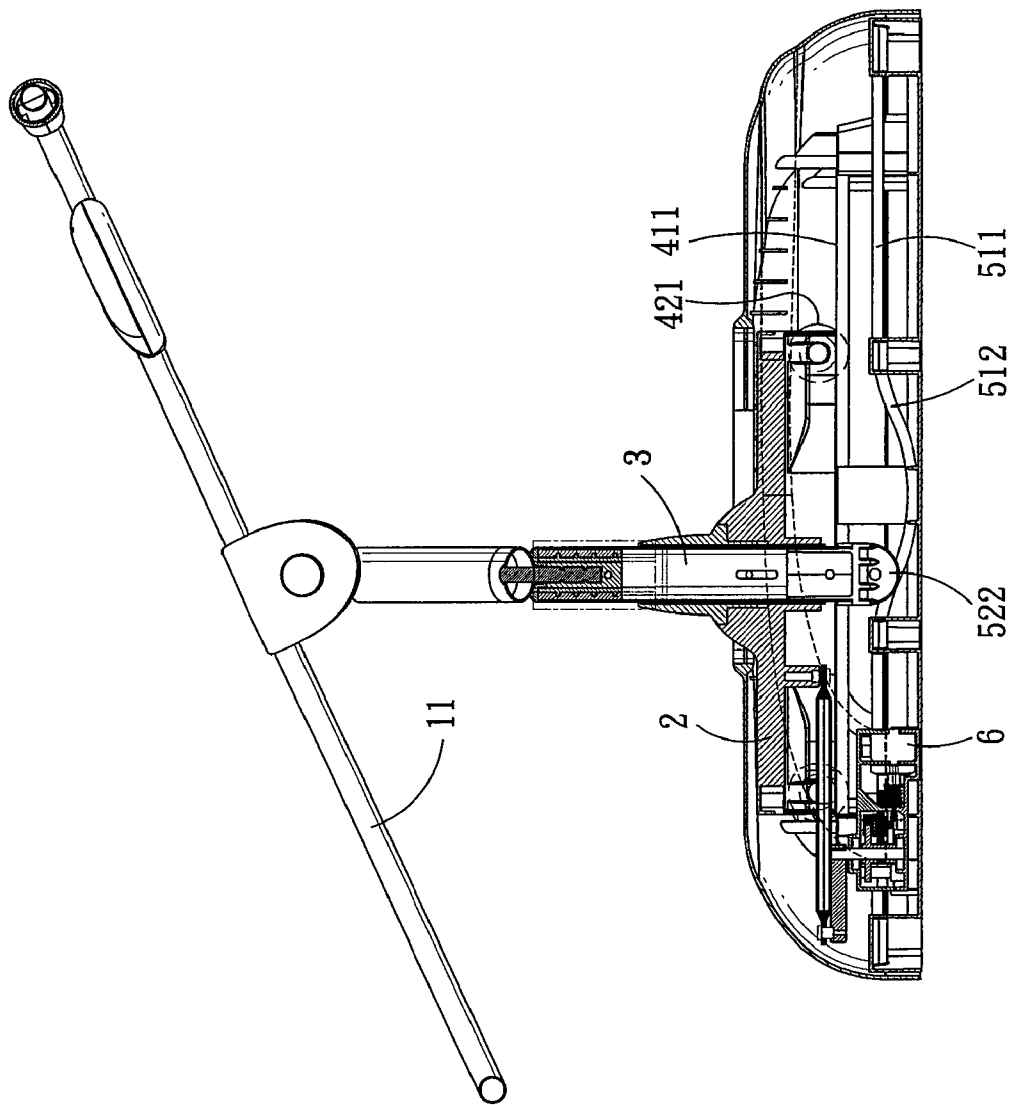


FIG. 3

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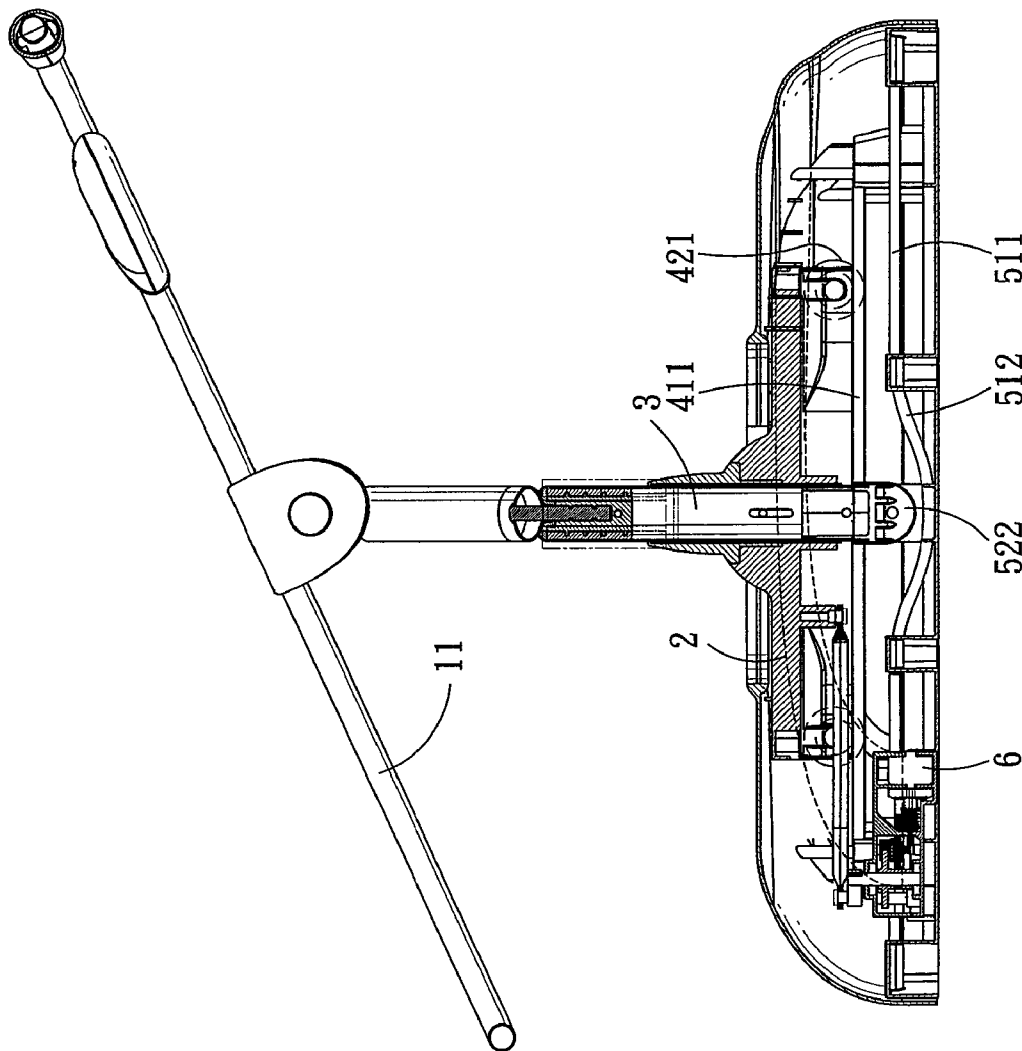


FIG. 4

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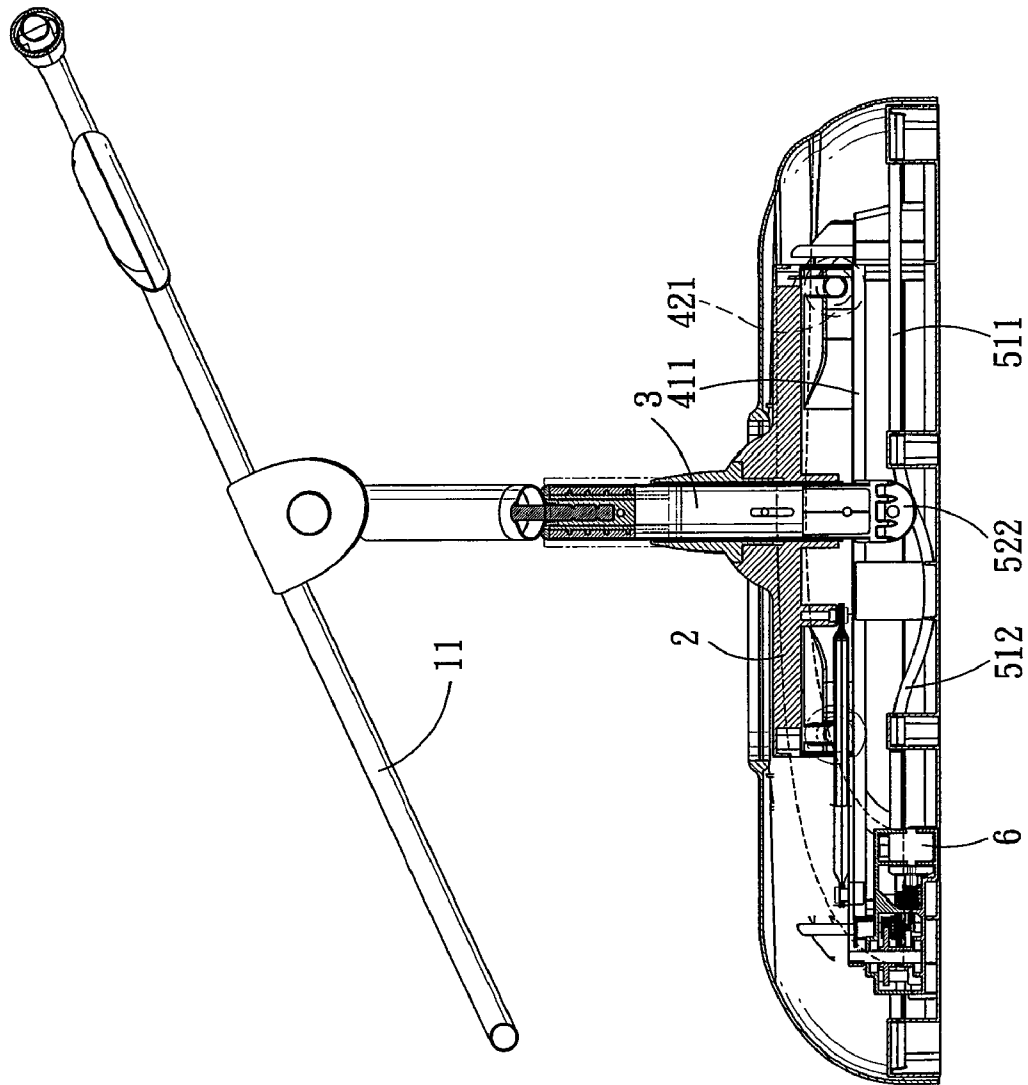


FIG. 5

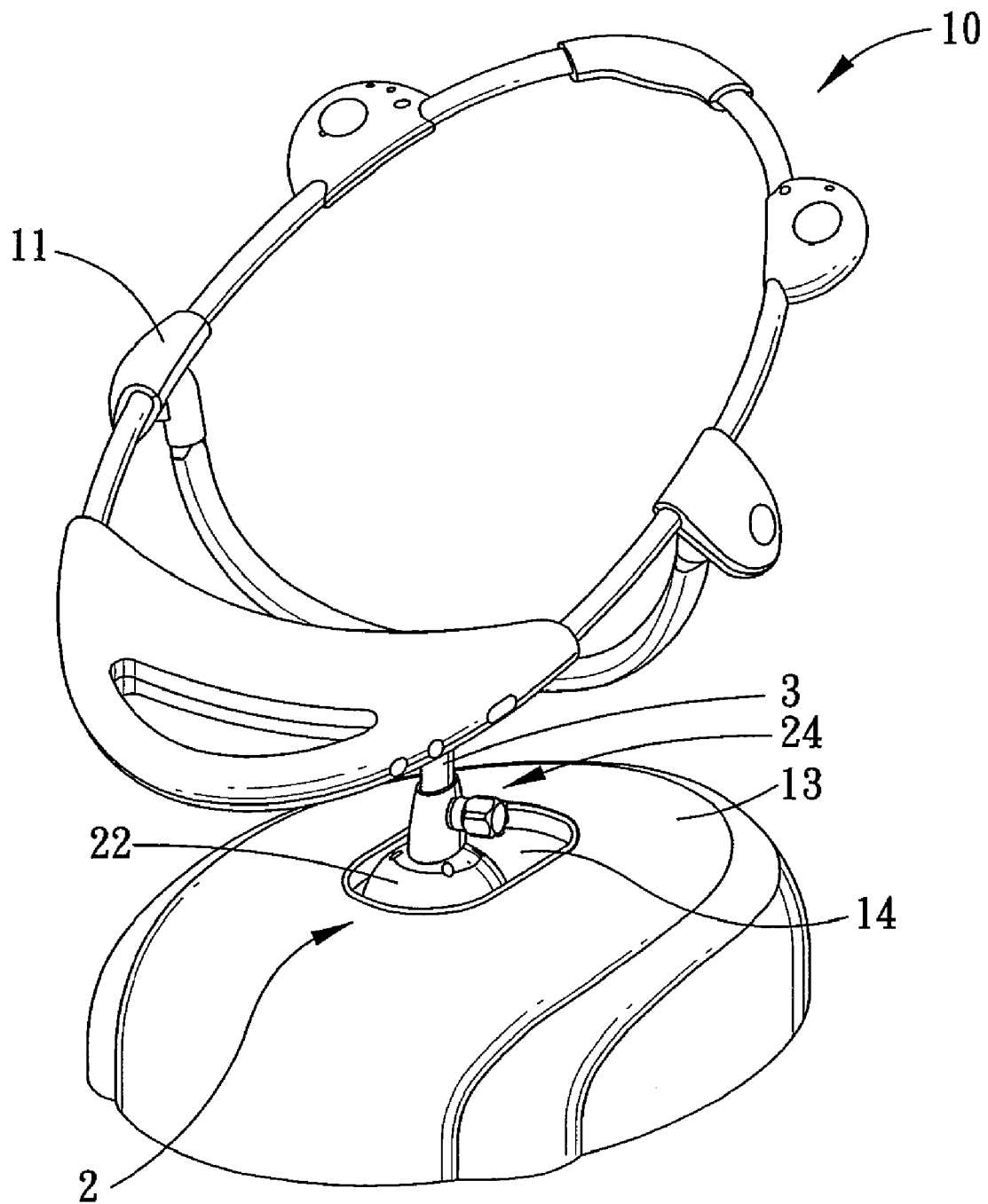


FIG. 6

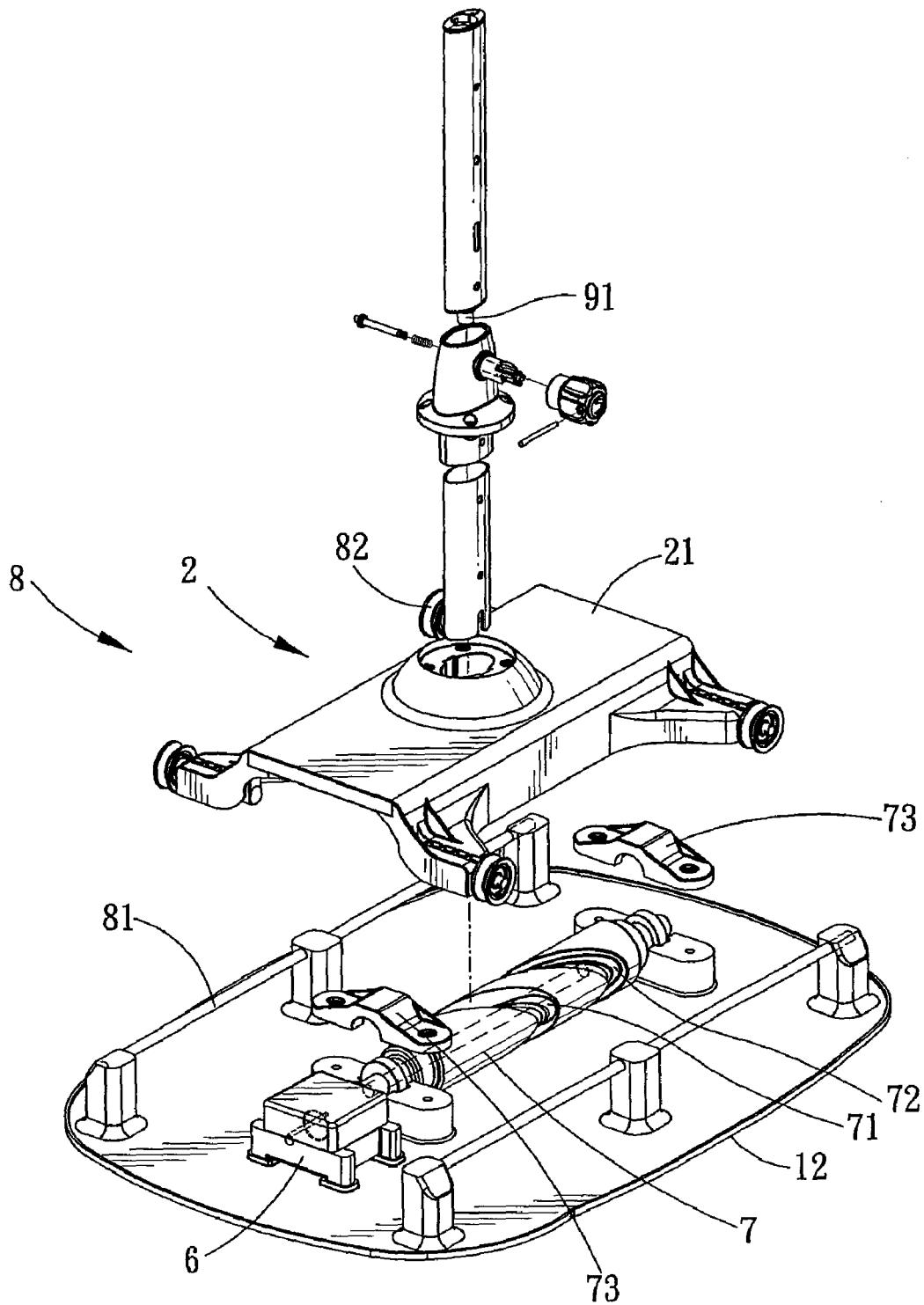


FIG. 7

A22

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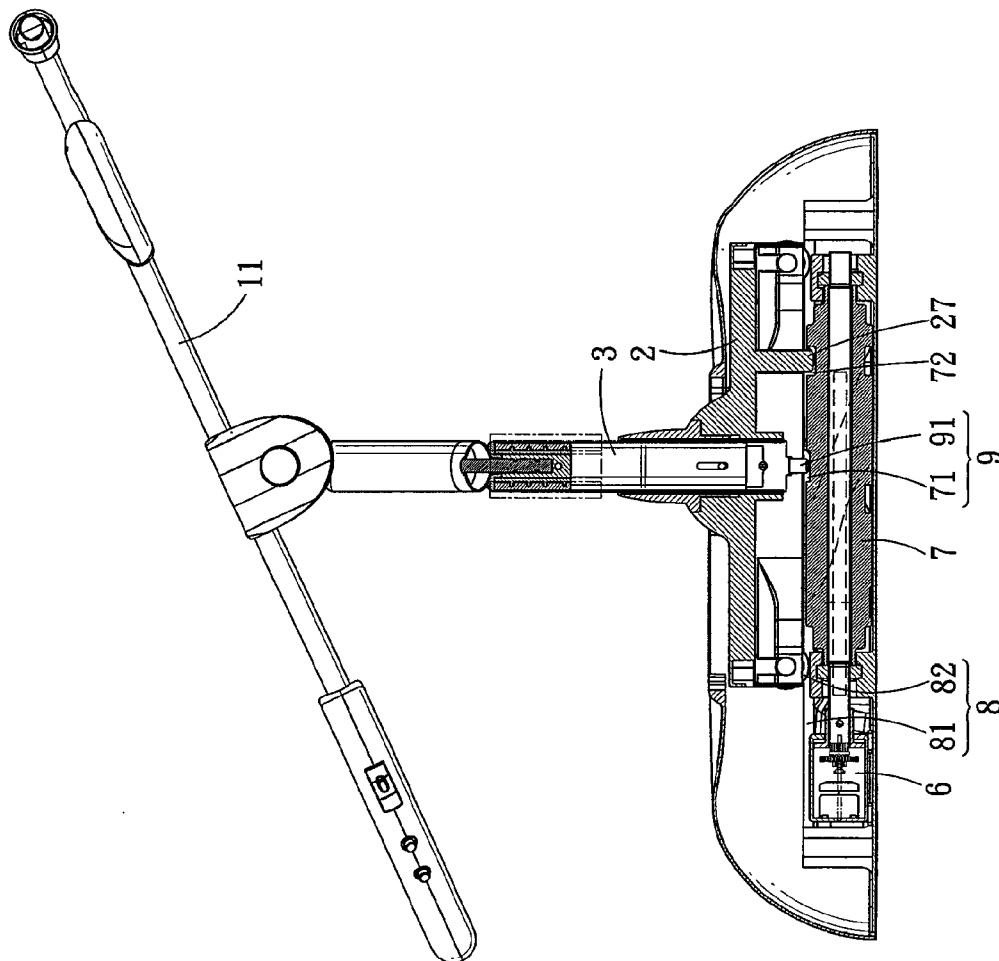


FIG. 8

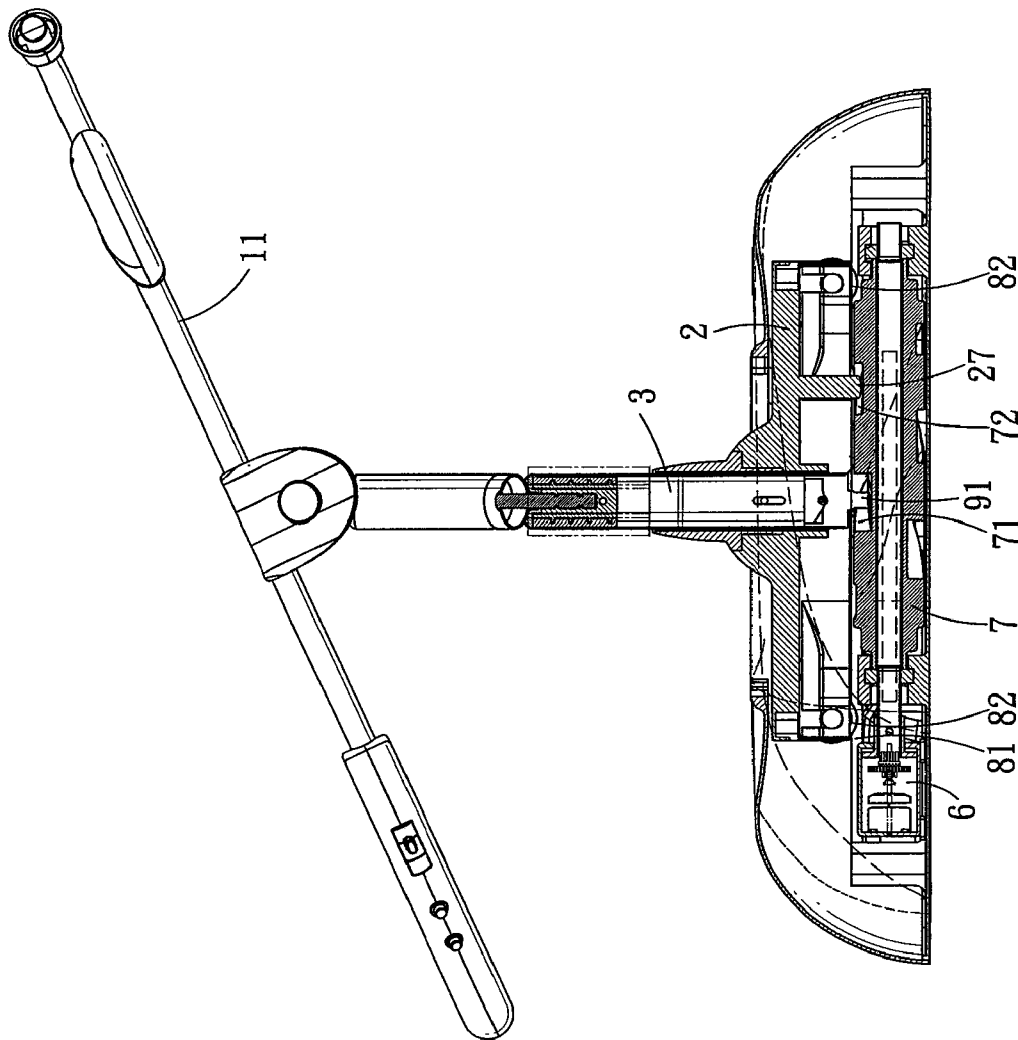


FIG. 9

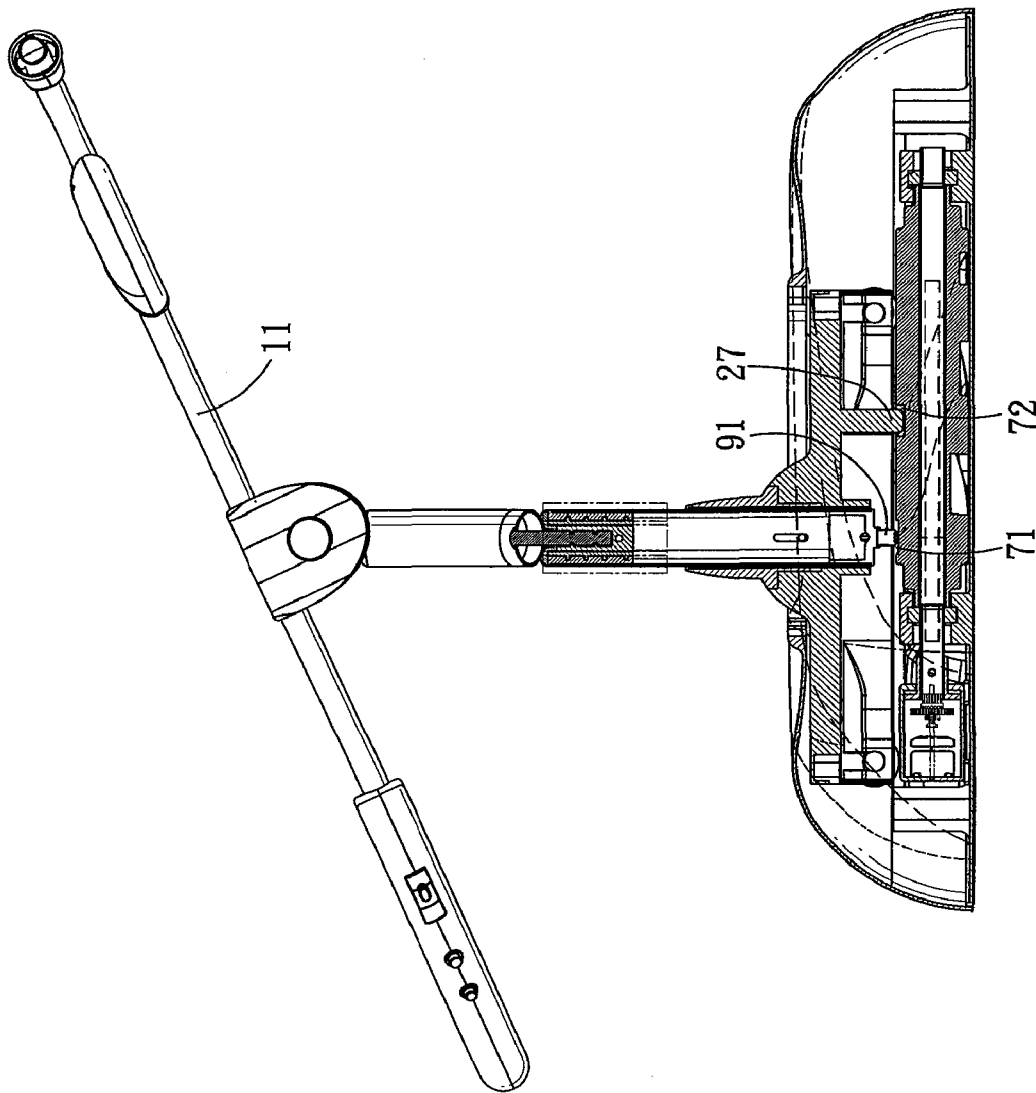


FIG. 10

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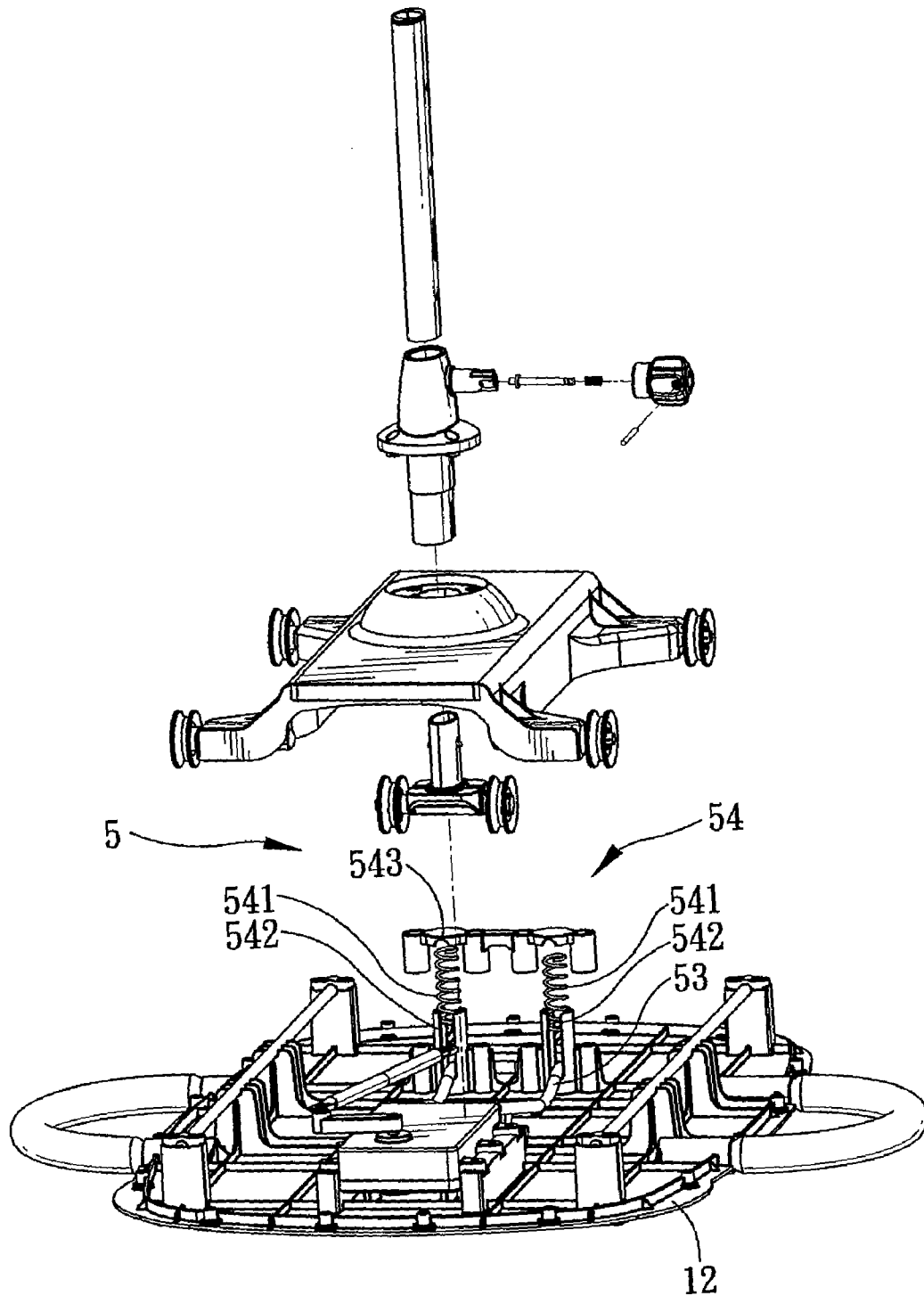


FIG. 11

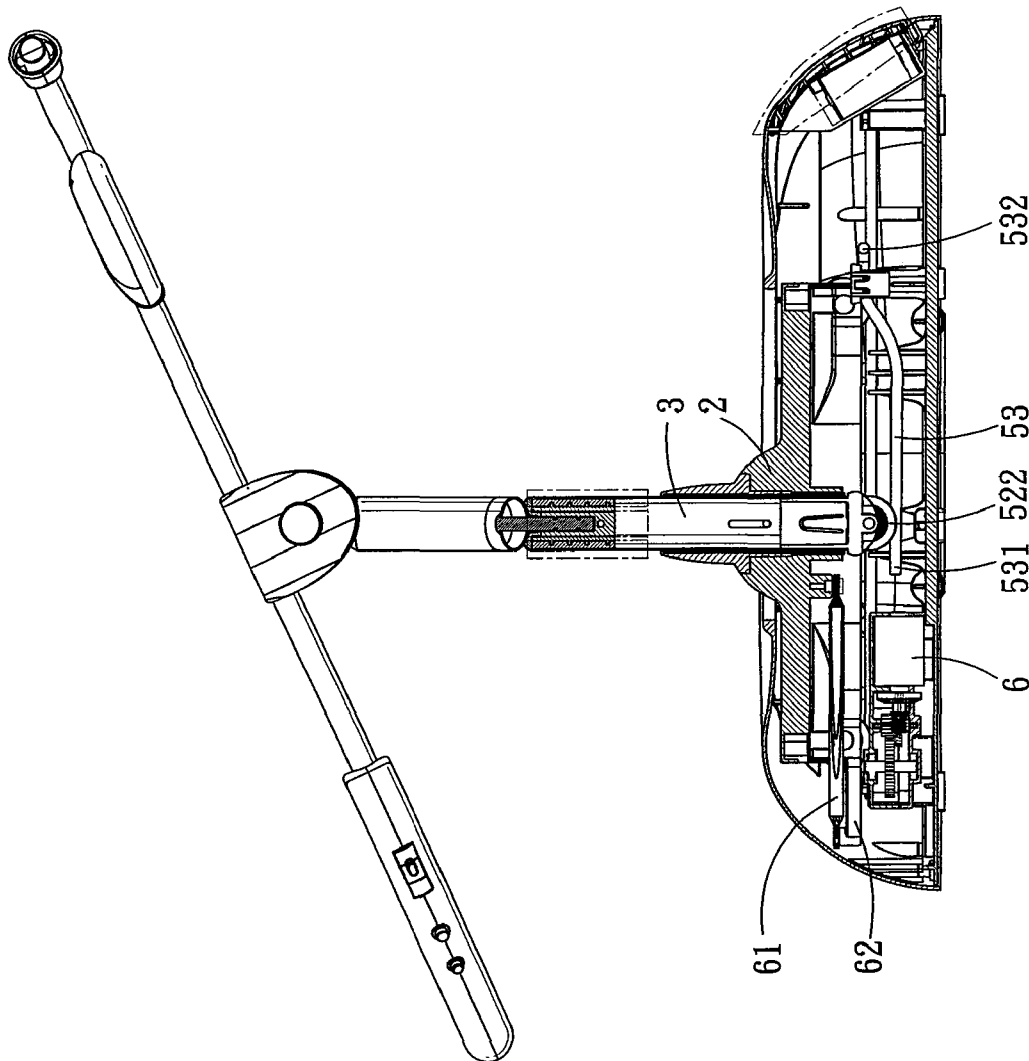


FIG. 12

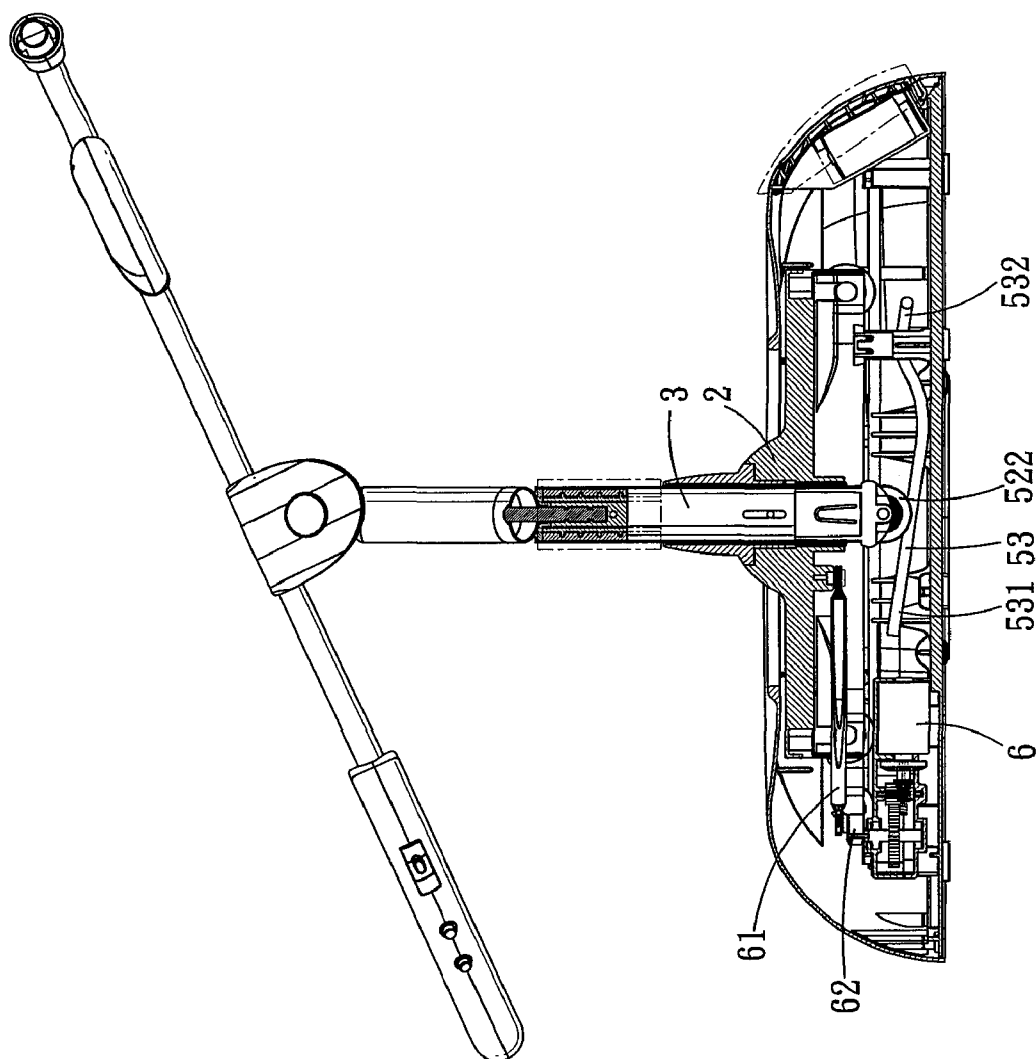


FIG. 13

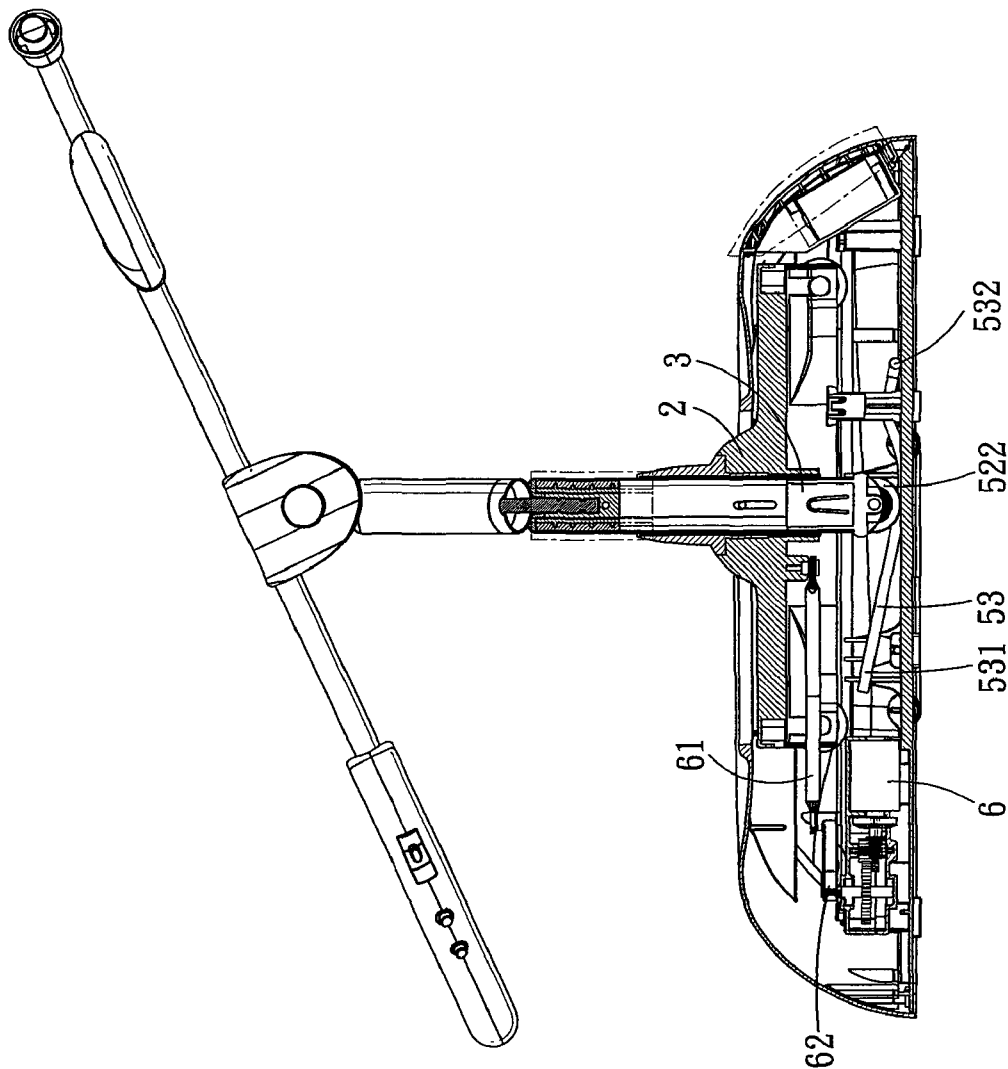


FIG. 14

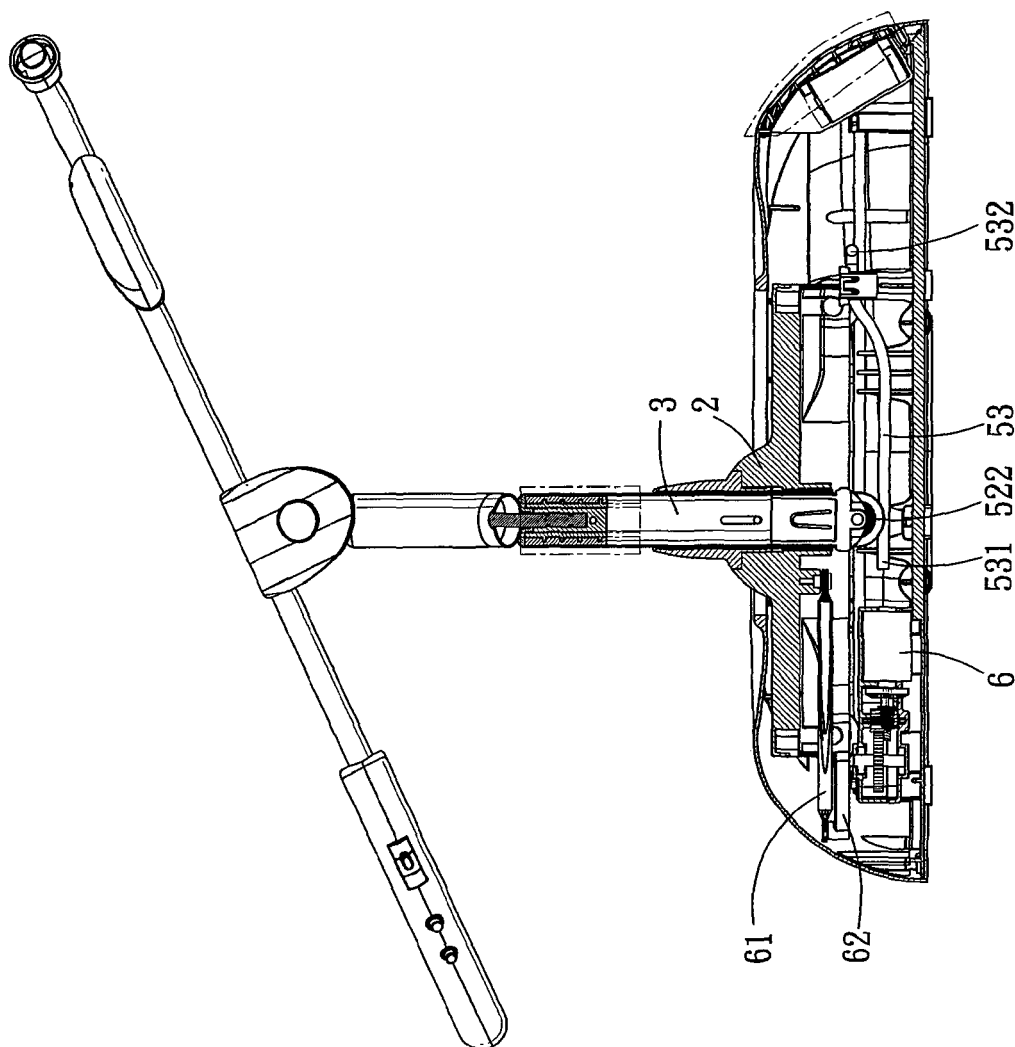


FIG. 15

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**INFANT ROCKING CHAIR AND DRIVING
DEVICE FOR DRIVING THE SAME****CROSS-REFERENCE TO RELATED
APPLICATIONS**

This application is a divisional to U.S. application Ser. No. 11/819,643, filed Jun. 28, 2007, which claims the benefit and priority of Chinese Application No. 200720002699.0, filed on Jan. 26, 2007. The entire contents of the applications are incorporated herein by reference in their entireties.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

This invention relates to an infant rocking chair, and more particularly to a driving device for driving a seat body of an infant rocking chair to move back and forth as well as up and down.

2. Description of the Related Art

Conventional infant rocking chairs can only produce either only a back-and-forth motion or an up-and-down motion. However, a curved swinging motion in which a back-and-forth motion is combined with an up-and-down motion so as to simulate the motion usually made by a person taking care of and holding an infant in his or her arms, is able to impart greater comfort to the infant. Furthermore, conventional driving devices for driving infant rocking chairs include interconnected gears, which generate a large amount of noise during operation.

SUMMARY OF THE INVENTION

An object of this invention is to provide a driving device for driving a seat body of an infant rocking chair to reciprocate back and forth as well as up and down in such a manner that only little noise is generated, thereby resulting in infant comfort.

Another object of this invention is to provide a rocking chair that includes a seat body, which can be operated selectively in a back-and-forth motion or a curved swinging motion.

According to an aspect of this invention, a driving device for an infant rocking chair is provided. The infant rocking chair includes a seat body and a bottom seat. The driving device is adapted to drive the seat body to reciprocate relative to the bottom seat back and forth as well as up and down, and comprises:

a base adapted to be disposed between the seat body and the bottom seat;

a supporting element extending through the base and having a top end adapted to be connected to the seat body;

a first motion mechanism including a horizontal first guide path unit disposed at the bottom seat, and a first movable member disposed on the base and movable along the first guide path unit; and

a second motion mechanism including a vertically varying second guide path unit disposed at the bottom seat, and a second movable member disposed fixedly on a bottom end of the supporting element and movable along the second guide path unit.

According to another aspect of this invention, an infant rocking chair comprises:

a seat body;

a bottom seat;

a base adapted to be disposed between the seat body and the bottom seat;

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a supporting element mounted movably on the base and having a top end adapted to be connected to the seat body;

a first motion mechanism including a first guide path unit disposed at the bottom seat, and a first movable member disposed on the base and movable along the first guide path unit; and

a second motion mechanism including a second guide path unit disposed at the bottom seat, and a second movable member disposed fixedly on a bottom end of the supporting element and movable along the second guide path unit;

wherein, when the base is moved back and forth relative to the bottom seat along the first guide path unit, an assembly of the seat body and the supporting element is moved up and down relative to the base.

According to still another aspect of this invention, an infant rocking chair comprising:

a seat body;

a bottom seat;

a supporting element having a top end adapted to be connected to the seat body;

a base adapted to be disposed between the seat body and the bottom seat and including a mounting member permitting the supporting element to be mounted movably thereon, and a locking unit for locking the supporting element relative to the mounting member;

a first motion mechanism including a first guide path unit disposed at the bottom seat, and a first movable member disposed on the base and movable along the first guide path unit so that the seat body is movable relative to the bottom seat in a first direction;

a second motion mechanism including a second guide path unit disposed at the bottom seat, and a second movable member disposed fixedly on a bottom end of the supporting element and movable along the second guide path unit so that the seat body is movable relative to the base in a second direction different from the first direction; and

a power mechanism for driving the base to reciprocate relative to the bottom seat along the first guide path unit in the first direction;

the supporting element and the locking unit being operable so as to convert the supporting element between a released state where the second movable member is in contact with the second guide path unit so as to allow the seat body to move relative to the base in the second direction when the base is moved relative to the bottom seat in the first direction, and a locked state where the second movable member is removed from the second guide path unit so as to allow the seat body to move relative to the bottom seat in only the first direction.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other features and advantages of this invention will become apparent in the following detailed description of the preferred embodiments of this invention, with reference to the accompanying drawings, in which:

FIG. 1 is a partly exploded perspective view of the first preferred embodiment of a driving device for driving an infant rocking chair according to this invention;

FIG. 1A is a fragmentary side view of the first preferred embodiment, illustrating a locking unit;

FIG. 2 is an assembled perspective view of the first preferred embodiment;

FIGS. 3, 4, and 5 are schematic partly sectional views of the first preferred embodiment, illustrating the reciprocal movements of first and second movable members;

FIG. 6 is a perspective view of the infant rocking chair including the first preferred embodiment;

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FIG. 7 is a partly exploded perspective view of the second preferred embodiment of a driving device for an infant rocking chair according to this invention;

FIGS. 8, 9, and 10 are schematic partly sectional views of the second preferred embodiment, illustrating the reciprocal movements of first and second movable members;

FIG. 11 is a partly exploded perspective view of the third preferred embodiment of a driving device for an infant rocking chair according to this invention; and

FIGS. 12, 13, 14, and 15 are schematic partly sectional views of the third preferred embodiment, illustrating the reciprocal movements of first and second motion mechanisms.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Before the present invention is described in greater detail in connection with the preferred embodiments, it should be noted that similar elements and structures are designated by like reference numerals throughout the entire disclosure.

FIGS. 1 and 2 show the first preferred embodiment of a driving device 1 for an infant rocking chair 10 according to this invention. The infant rocking chair 10 includes a seat body 11 and a bottom seat 12. The driving device 1 drives the seat body 11 to reciprocate relative to the bottom seat 12 back and forth as well as up and down. The driving device 1 includes a base 2, an upright supporting rod 3 having a top end connected to the seat body 11, a sleeve tube 31 sleeved around the supporting rod 3 so as to allow for synchronous horizontal movement of the supporting rod 3 and the base 2, first and second motion mechanisms 4, 5, and a power mechanism 6.

The base 2 is disposed between the seat body 11 and the bottom seat 12, and includes a substantially rectangular plate 21, a frustoconical connecting member 22 disposed fixedly on and above a central portion of the plate 21, a tubular rod-mounting member 23 inserted into and connected fixedly to the connecting member 22, and a locking unit 24. The rod-mounting member 23 is formed with a central bore 25 therethrough. The sleeve tube 31 is inserted into and connected fixedly to the rod-mounting member 23. The supporting rod 3 is movable axially within the sleeve tube 31. The supporting rod 3 and the sleeve tube 31 are formed respectively with two aligned holes 32, 33.

With further reference to FIG. 1A, the locking unit 24 includes a spring-accommodating portion 241 extending laterally from the rod-mounting member 23 and in spatial communication with the central bore 25 in the rod-mounting member 23, a coiled compression spring 242 disposed within the spring-accommodating portion 241, a movable pin 243, and a rotary knob 244 sleeved on a right end of the spring-accommodating portion 241. The movable pin 243 extends through the spring-accommodating portion 241 and the spring 242 and into the rotary knob 244, and is aligned with the hole 33 in the sleeve tube 31. A flange 245 extends radially and outwardly from a left end portion of the movable pin 243. The coil compression spring 242 is disposed between the flange 245 and a shoulder 241' of the spring-accommodating portion 241. A fastening pin 246 extends through a right end of the movable pin 243, and is connected fixedly to the rotary knob 244 so as to allow for synchronous movement and rotation of the movable pin 243 and the rotary knob 244. As such, the rotary knob 244 is biased by the spring 242 to move on the spring-accommodating portion 241 toward the rod-mounting member 23. Thus, when the supporting rod 3 is moved within the sleeve tube 31 to a predetermined axial position shown in FIG. 1A to thereby align the hole 32 in the

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supporting rod 3 with the hole 33 in the sleeve tube 31, the left end portion of the movable pin 243 is urged by the spring 242 into the holes 32, 33 in the supporting rod 3 and the sleeve tube 31. As a result, the supporting rod 3 is locked within the sleeve tube 31 at the predetermined axial position. In other words, the supporting rod 3 is maintained in a locked state.

Each of the spring-accommodating portion 241 and the rotary knob 244 is formed with two inclined guiding surfaces 247 at two opposite side portions thereof. The inclined guiding surfaces 247 of the spring-accommodating portion 241 abut respectively against the inclined guiding surfaces 247 of the rotary knob 244 such that, when a force is applied to the rotary knob 244 for rotating the same in a direction, the rotary knob 244 moves away from the spring-accommodating portion 241 to thereby remove the movable pin 243 from the holes 32, 33. Hence, the supporting rod 3 is movable within the sleeve tube 31. In other words, the supporting rod 3 is converted into a released state. When the force is released, the left end portion of the movable pin 243 is biased by the spring 242 to contact an annular wall surface of the supporting rod 3.

The first motion mechanism 4 includes a horizontal first guide path unit 41 and a first movable member 42 movable along the first guide path unit 41. The first guide path unit 41 includes a pair of spaced-apart straight guiding rods 411 disposed on and above the bottom seat 12. The first movable member 42 includes two parallel rows of first rollers 421 disposed respectively on two opposite sides of the base 2 and movable respectively along the straight guiding rods 411. In this embodiment, each of the first rollers 421 is sleeved rotatably on an axle 422. The axles 422 are connected respectively to four supporting legs 26 extending respectively and integrally from four corners of the plate 21.

The second motion mechanism 5 includes a vertically varying second guide path unit 51 and a second movable member 52 movable along the second guide path unit 51 when the supporting rod 3 is in the released state. The second guide path unit 51 includes a pair of vertically curved guiding rods 511 parallel to and spaced apart from each other along a horizontal direction. Each of the curved guiding rods 511 has a sunken rod segment 512 at a middle portion thereof. The second movable member 52 includes a supporting frame 521 attached fixedly to a bottom end of the supporting rod 3, and a pair of second rollers 522. The second rollers 522 are sleeved rotatably on an axle 523 connected fixedly to the supporting frame 521. When the supporting rod 3 is converted from the locked state into the released state, it moves downwardly within the sleeve tube 31 by gravity until the second rollers 522 come into contact with the curved guiding rods 511, respectively, as shown in FIGS. 3 and 5.

The power mechanism 6 is configured as a variable speed motor including a vertical motor shaft 60. The driving device 1 further includes a crank 61 connected fixedly to the motor shaft 60 at one end thereof, and a link 62 having two ends connected respectively and pivotally to the base 2 and the other end of the crank 61. As such, rotation of the motor shaft 60 results in reciprocal movement of the first and second movable members 42, 52. Due to the presence of the crank 61 and the link 62 interconnected between the power mechanism 6 and an assembly of the first and second movable members 42, 52, the power mechanism 6 is capable of driving the first movable member 42 and, thus, the base 2 to reciprocate back and forth along the first guide path unit 41, and of driving the second movable member 52 along the second guide path unit 51 so as to allow an assembly of the supporting rod 3 and the seat body 11 to reciprocate up and down relative to the base 2.

With particular reference to FIG. 4, when the supporting rod 3 is in the locked state and when the power mechanism 6

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is operated, the second rollers 522 are spaced respectively apart from the curved guiding rods 511. This prevents movement of the seat body 11 relative to the base 2, thereby resulting in only a back-and-forth motion of the seat body 11.

With particular reference to FIGS. 3 and 5, when the supporting rod 3 is in the released state and when the power mechanism 6 is operated, the second rollers 522 are in contact with the curved guiding rods 511, respectively. This allows for movement of the seat body 11 relative to the base 2, thereby resulting in a curved swinging motion of the seat body 11 in which the back-and-forth motion is combined with an up-and-down motion so as to simulate the motion usually made by a person taking care of and holding an infant in his or her arms.

FIG. 6 shows the infant rocking chair 10 configured to further include a cover body 13. The cover body 13 cooperates with the bottom seat 12 (see FIG. 1) so as to define an accommodating chamber 14 therebetween. The driving device 1 (see FIG. 1) is disposed within the accommodating chamber 14 such that the base 2 and the supporting rod 3 extend partially and upwardly from the cover body 13.

FIGS. 7, 8, 9, and 10 show the second preferred embodiment of a driving device for an infant rocking chair according to this invention, which is similar in construction to the first preferred embodiment. In this embodiment, a threaded rod 7 is added, and the curved guiding rods 511 (see FIG. 1), the crank 61 (see FIG. 1), and the link 62 (see FIG. 1) are omitted. The threaded rod 7 is disposed between the bottom seat 12 and the base 2, and is rotatable by the power mechanism 6. The threaded rod 7 has two end portions disposed respectively and rotatably on the bottom seat 12 by two supporting units 73, and an annular outer surface formed with an annular first helical slot 71 having a variable depth, and an annular second helical slot 72 having a uniform depth. The first helical slot 71 constitutes the second guide path unit. The supporting rod 3 is formed with a first projecting tooth 91 that extends from a bottom end thereof into the first helical slot 71 and that constitutes the second movable member. The base 2 is formed with a second projecting tooth 27 that extends downwardly therefrom into the second helical slot 72.

The first motion mechanism 8 includes the straight guiding rods 81 and the first rollers 82. When the threaded rod 7 is rotated by the power mechanism 6, the second projecting tooth 27 of the base 2 is moved along the second helical slot 72. Hence, the first rollers 82 reciprocate along the straight guiding rods 81, thereby resulting in a back-and-forth motion of the base 2 relative to the bottom seat 12.

The second motion mechanism 9 includes the first helical slot 71 and the first projecting tooth 91. When the first projecting tooth 91 is moved along the first helical slot 71, the supporting rod 3 reciprocates up and down relative to the base 21.

When the supporting rod 3 is in the locked state and when the power mechanism 6 is operated, the first projecting tooth 91 is spaced apart from the first helical slot 71. This prevents movement of the seat body 11 relative to the base 2, thereby resulting in only a back-and-forth motion of the seat body 11.

When the supporting rod 3 is in the released state and when the power mechanism 6 is operated, the first projecting tooth 91 comes into contact with the threaded rod 7, and slides along the first helical slot 71 in the threaded rod 7. This allows for movement of the seat body 11 relative to the base 2, thereby resulting in a curved swinging motion of the seat body 11.

In an alternative design, the second helical slot 72 and the second projecting tooth 27 are omitted, and the shape of the first projecting tooth 91 is changed such that, when the sup-

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porting rod 3 is in the locked state, the first projecting tooth 91 is spaced apart from the bottom wall defining the first helical slot 71, and is in slidable contact with one of the lateral walls defining the first helical slot 71, thereby allowing the one of the lateral walls to perform the same function as the second helical slot 72 (see FIG. 7). That is, when the supporting rod 3 is in the locked state and when the power mechanism 6 is operated, the first projecting tooth 91 slides along the one of the lateral walls so as to allow for the back-and-forth motion of the seat body 11; and when the supporting rod 3 is in the released state and when the power mechanism 6 is operated, the first projecting tooth 91 slides along both the bottom wall and the one of the lateral walls so as to allow for the curved swinging motion of the seat body 11.

FIGS. 11 and 12 show the third preferred embodiment of a driving device for an infant rocking chair according to this invention, which is similar in construction to the first preferred embodiment. In this embodiment, the second motion mechanism 5 further includes a resilient damping unit 54, and each of the curved guiding rods 53 has a pivot end 531 connected pivotally to the bottom seat 12, and a free end 532 pivotable upwardly and downwardly about the pivot end 531. The resilient damping unit 54 includes two coiled compression springs 541, two spring-receiving members 542, and a spring-retaining member 543. The spring-receiving members 542 are disposed fixedly on the bottom seat 12 for receiving the springs 541, respectively. The spring-retaining member 543 is attached to the bottom seat 12 for preventing removal of the springs 542 from the spring-receiving members 542, respectively. The springs 541 are disposed between the bottom seat 12 and the free ends 532 of the curved guiding rods 53 for biasing the free ends 532 of the curved guiding rods 53 to pivot upwardly away from the bottom seat 12. With further reference to FIGS. 13, 14, and 15, when the second rollers 522 are moved from the pivot ends 531 toward the free ends 532, the springs 542 store return forces for biasing the free ends 532 to pivot upwardly when the second rollers 522 are moved from the free ends 532 toward the pivot ends 531. Thus, the output power that must be supplied by the motion mechanism 6 can be reduced.

With this invention thus explained, it is apparent that numerous modifications and variations can be made without departing from the scope and spirit of this invention. It is therefore intended that this invention be limited only as indicated by the appended claims.

We claim:

1. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:

a base adapted to be disposed between the seat body and the bottom seat;

a supporting element connected to said base and adapted to support the seat body;

a first motion mechanism including a horizontal first guide path unit adapted to be disposed at the bottom seat, and a first movable member disposed on said base and movable along said first guide path unit; and

a motor for driving said first movable member,

wherein said motor includes:

a motor shaft,

a crank connected fixedly to said motor shaft at one end thereof, and

a link having two ends connected respectively and pivotally to said base and the other end of said crank such that rotation of said motor shaft results in reciprocal movement of said first movable member.

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2. The driving device as claimed in claim 1, wherein said first guide path unit includes a pair of spaced-apart guiding elements, said first movable member including two parallel rows of rollers that are disposed respectively on two opposite sides of said base and that are movable respectively along said guiding elements.

3. The driving device as claimed in claim 2, further comprising a second motion mechanism, adapted to be disposed between the seat body and the bottom seat, for driving said supporting element to move up and down relative to said first movable member.

4. The driving device as claimed in claim 3, wherein the second motion mechanism includes a vertically varying second guide path unit adapted to be disposed at the bottom seat, and a second movable member disposed fixedly on a bottom end of said supporting element and movable along said second guide path unit.

5. The driving device as claimed in claim 4, wherein said base includes a mounting member permitting said supporting element to be mounted movably thereon, and a locking unit for locking said supporting element relative to said mounting member parallel to said first guide path unit.

6. The driving device as claimed in claim 4, wherein said second guide path unit includes a pair of parallel vertically curved guiding elements spaced apart from each other, said second movable member including a supporting frame attached fixedly to the bottom end of said supporting element, and a pair of rollers that are disposed rotatably on said supporting frame and that are movable respectively along said curved guiding elements.

7. The driving device as claimed in claim 6, wherein each of said curved guiding elements has a sunken rod segment at a middle portion thereof.

8. The driving device as claimed in claim 7, further comprising a power mechanism for driving said first movable member and, thus, said base to reciprocate back and forth along said first guide path unit and for driving said second movable member along said second guide path unit so as to allow said supporting element to reciprocate up and down relative to said base.

9. The driving device as claimed in claim 8, further comprising a threaded rod that is adapted to be disposed between the bottom seat and said base and that is rotatable by said power mechanism, said threaded rod having an annular outer surface formed with an annular first helical slot that has a variable depth and that constitutes said second guide path unit, said second movable member being configured as a first projecting tooth extending from said bottom end of said supporting element into said first helical slot in said threaded rod.

10. The driving device as claimed in claim 9, wherein said annular outer surface of said threaded rod is further formed with an annular second helical slot having a uniform depth, said base being formed with a second projecting tooth that extends downwardly therefrom into said second helical slot in said threaded rod and that is movable along said second helical slot.

11. The driving device as claimed in claim 4, wherein said second guide path unit is parallel to said first guide path.

12. An infant rocking chair comprising:

a seat body;
a bottom seat;

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a base disposed between said seat body and said bottom seat and movable on said bottom seat;

a supporting element connected to said base for supporting said seat body;

a first motion mechanism disposed between said base and said bottom seat for driving said base to move back and forth on said bottom seat; and

a second motion mechanism disposed between said supporting element and said bottom seat for driving said supporting element to move up and down relative to said base.

13. The infant rocking chair as claimed in claim 12, wherein said first motion mechanism includes a first pair of guiding elements spaced apart from each other, and two parallel rows of rollers that are disposed respectively on two opposite sides of said base and that are movable respectively along said first pair of guiding elements.

14. The infant rocking chair as claimed in claim 13, wherein said second motion mechanism includes a second pair of guiding elements spaced apart from each other, a supporting frame attached fixedly to the bottom end of said supporting element, and a pair of rollers that are disposed rotatably on said supporting frame and that are movable respectively along said second pair of guiding elements.

15. The infant rocking chair as claimed in claim 14, wherein each of said second pair of guiding elements is parallel to each of said first pair of guiding elements.

16. The infant rocking chair as claimed in claim 14, wherein each of said second pair of guiding elements is curved.

17. The infant rocking chair as claimed in claim 16, further comprising a resilient damping unit.

18. The infant rocking chair as claimed in claim 12, wherein said base includes a mounting member permitting said supporting element to be mounted movably thereon, and a locking unit for locking said supporting element relative to said mounting member to limit said seat body to move back and forth only.

19. A driving device for an infant rocking chair, the infant rocking chair including a seat body and a bottom seat, said driving device comprising:

a base adapted to be disposed between the seat body and the bottom seat;

a supporting element connected to said base and adapted to support the seat body;

a first motion mechanism including a horizontal first guide path unit adapted to be disposed at the bottom seat, and a first movable member disposed on said base and movable along said first guide path unit; and

a second motion mechanism adapted to be disposed between the seat body and the bottom seat for driving said supporting element to move up and down relative to said first movable member.

20. The driving device as claimed in claim 19, wherein said first guide path unit includes a pair of spaced-apart guiding elements, said first movable member including two parallel rows of rollers that are disposed respectively on two opposite sides of said base and that are movable respectively along said guiding elements.

* * * * *

**United States Court of Appeals
for the Federal Circuit**

WONDERLAND NURSERY GOODS CO., LTD. v. THORLEY INDUSTRIES LLC,
2015-1034

CERTIFICATE OF SERVICE

I, Lindsay C. Cloonan, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by BAKER & MCKENZIE LLP, Attorneys for Appellant to print this document. I am an employee of Counsel Press.

On **December 8, 2014**, Counsel for Appellants authorized me to electronically file the foregoing **Brief of Appellant** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to any of the following counsel registered as CM/ECF users:

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Upon acceptance by the Court of the e-filed document, six paper copies will be filed with the Court, via Federal Express, within the time provided in the Court's rules.

December 8, 2014

/s/ Lindsay C. Cloonan
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This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B). This brief contains 13,312 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Fed. Cir. R. 32(b).

The brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally-spaced typeface using Microsoft Word 2007 in 14-point Times New Roman type.

/s/ David I. Roche

David I. Roche

One of the Attorneys for Appellant